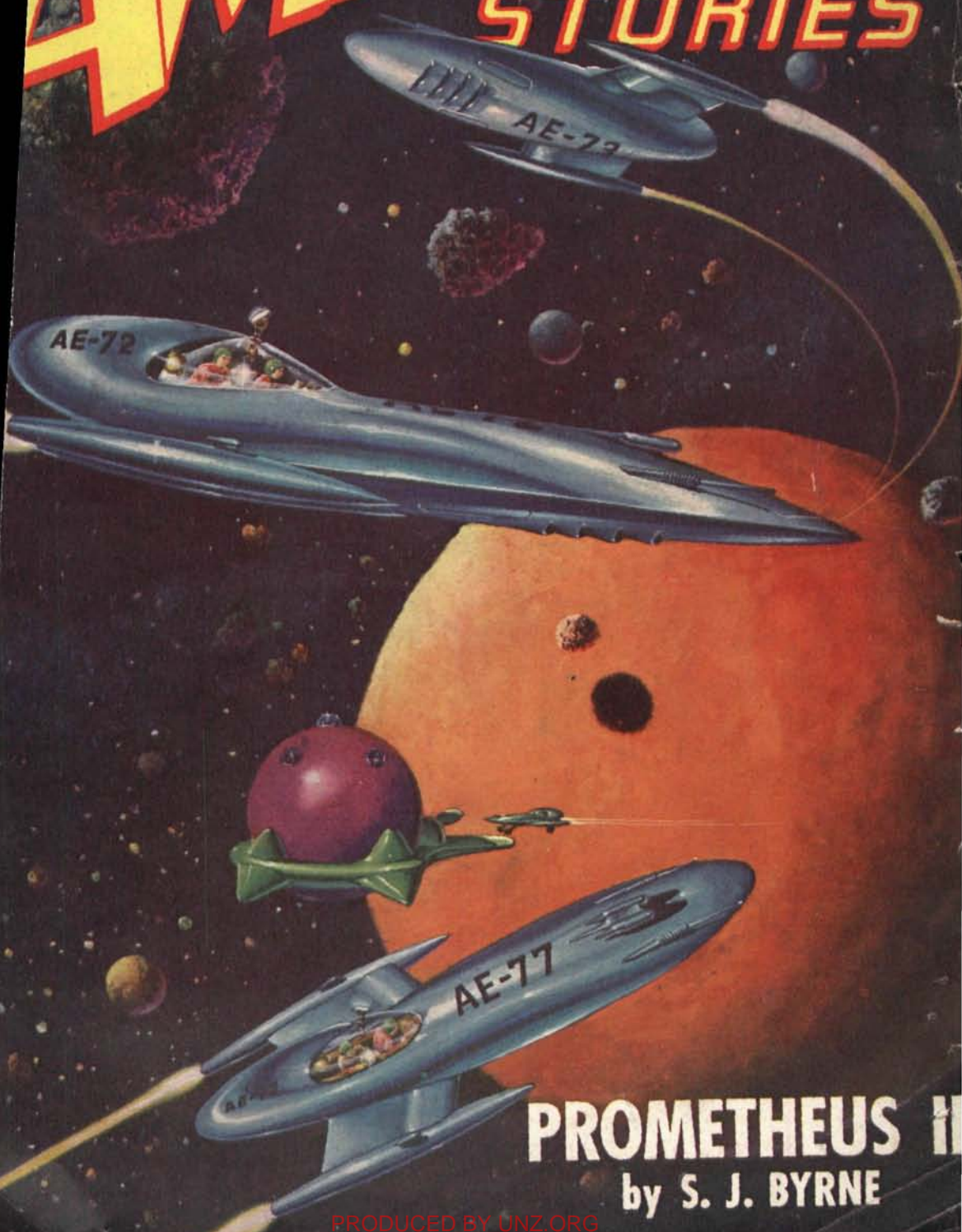


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by S. J. BYRNE

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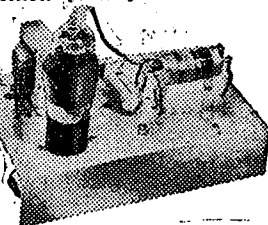


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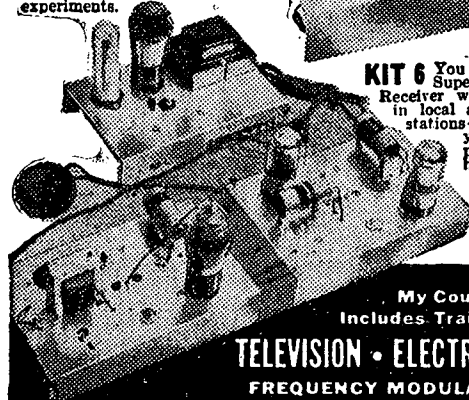
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All Stories Complete

PROMETHEUS II (Novel—54,000) by S. J. Byrne 8
 Illustrated by Malcolm Smith

All hell broke loose on Earth when America and Russia went to war! But Russia had a powerful ally on her side—the people of the caves! America's only hope was . . . the Gods of Outer Space!

THE PHANTOM HANDS (Short—3,600) by Berkeley Livingston 98
 Illustrated by Julian S. Krupa

The void was filled with battle, and the victory or the defeat hinged on the destruction of one giant battle cruiser of space. But how could that monster be destroyed by a man without hands?

STRICTLY FROM MARS (Novelet—16,500) by Robert Bloch 106
 Illustrated by Enoch Sharp

There it was, a monstrous creature, an essence, from Mars! But what was it, really? What connection could it have with the orphanage, and with an eight-year-old child . . . and with DEATH?

Front Cover Painting by Malcolm Smith, illustrating a scene from "Prometheus II"

Back Cover Painting by James B. Settles, illustrating "Space Ships in Antarctica"

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The OBSERVATORY

..... by the Editor

WAY back in August, 1935, we ran a story called "Music Of The Spheres" by S. J. Byrne. Many of our readers remember that little story, and it is considered as worthy of listing among the "classics" of the past. In other words, Mr. Byrne is a good writer. Well, thirteen years have passed, and at last we are running another story by this author. This time it isn't any short—but a novel of 54,000 words. And we think it is a very fine novel indeed. We might add that Mr. Byrne, who wrote this story in Peru, is a world traveler, an amateur astronomer, an airline official, a bit of a philosopher, and a "right joe." We spent several days with him this last summer, and enjoyed every minute. Mr. Byrne is what you'd call a "Shaver Fan" too, and he has been able to prove many details of the Shaver Mystery to be true. Such as the amazing caves and tunnels of Peru, stretching for a thousand miles, built by a race whose existence has been forgotten; and his own personal observation of giant footprints a yard long in the Andes. In his story "Prometheus II," he has incorporated the Shaver Mystery, the city of Agharthi, the King Of The World, the Elder Gods of Space, and the theory of a future war with Russia into a plot which staggers the imagination. You will find this story something to think about, and as entertaining and forceful a novel as we've ever run. It continues our record of a-classic-a-month of the past year! These are terrific stories, and we're darn well proud of them!

Berkeley Livingston gives us a short this month which is a space-battle story with a weird slant, called "The Phantom Hands." It's a bit unusual, and we think you'll like this bit of variety in our usual fare.

Returning triumphantly is another of your old-time favorites, Robert Bloch! Yep, he's back again in AMAZING STORIES, and you'll find that "Strictly From Mars" is strictly from Bloch! We have read the story three times out of sheer delight, and we welcome back our old friend of the Milwaukee Fictioneers. By the way, that group of literary lights is still shining brightly, and is, we believe, the oldest writers' group in the country of its kind.

Only three stories, this time, but they are something special! So you'll forgive us for sacrificing contents page length for quality! However, we've given you two very long articles in this issue which should prove very special, and very controversial. One is an article on geology which postulates an interior of the earth composed of water, rather than molten magma! This should prove startling to you! The other is a darn good discussion of the fourth dimension—which has always been fascinating fare to science fiction readers. The author covers the subject from plane geometry to mysticism, not skipping a single thing. When you've finished it, we wager you'll find dozens of exciting plots for stories popping into your mind, based on factors in the article. Queen's Knight, the author (a pen name of course!), should fascinate you, and many of you will remember his article "The Lost Orb" about how our Moon got its "shell-holes."

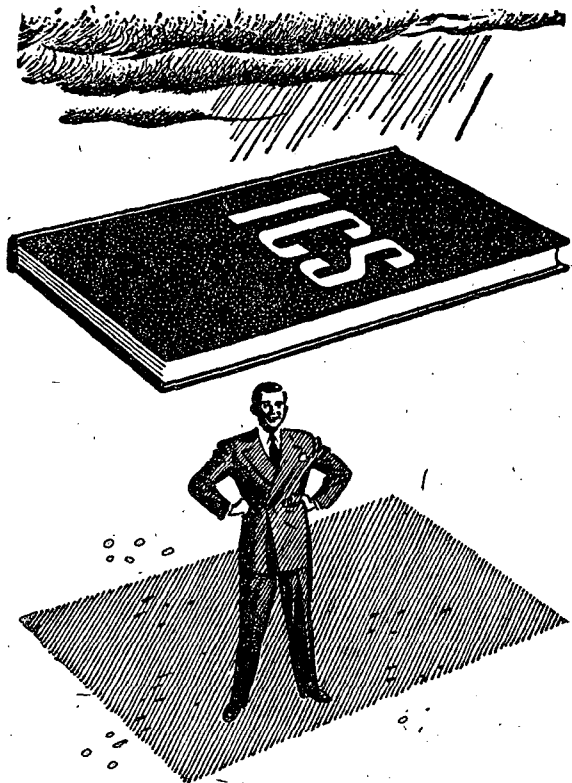
L. Taylor Hansen gives us another of his "Scientific Mysteries," the 43rd in the series, continuing his research into the past and the relationship of ancient races, particularly our own American Indians. All of his articles are scientific fact, and if you've saved them, you've got a valuable textbook for reference.

Discussions this month is a very long affair again. We note that our expansion of this department has proved the most popular thing we've done in a long time. We'll keep it that way. Just write in, on any subject you care to spout about, and get in on the merry verbal battles that are going on.

In our April issue we're going to prove part of the Shaver Mystery. We're going to knock you right over. So don't miss that issue, by all means. And preceding it, we're giving you an 87,000 word novel by Richard S. Shaver which is one of the finest stories he's ever written. It has a pace that'll have you exhausted long before you finish—but exhausted through sheer pleasure. Richard can sure pile on the adventure—and he hasn't neglected plenty of "that mystery" in the telling. "Gods Of Venus" is one of the top novels of the year, and well in keeping with our record-breaking run of top-novels of recent months. Take it from us!

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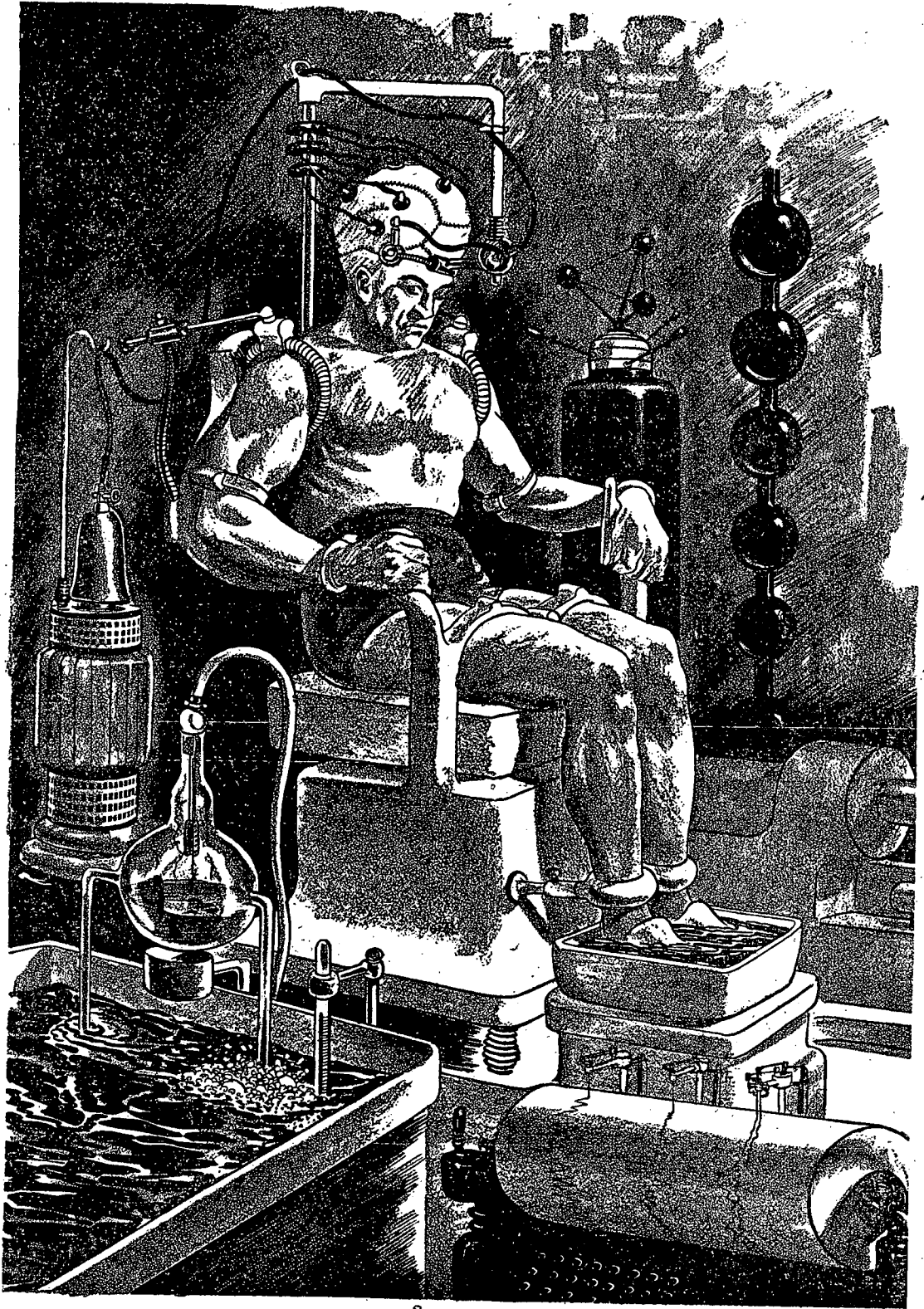
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PROMETHEUS II

by S. J. BYRNE

The warlords of Russia made a strange
alliance with the underworld—and disaster
faced all the democratic peoples of earth!
Unless there really were gods in space . . .

The room was a mass of equip-
ment; vats, tubes, dials, graphs
and charts—and a fantastic
figure in a chair



PREFACE

SINCE MR. SHAVER started Shaverism, many a STF scribbler, while scrabbling for new material, has gone into a brain warp and boomeranged right back to the puzzle and the challenge of Shaverism. Shaverism poses so many interesting and oftentimes disturbing questions that plot after plot springs out of that inexhaustible soil. It is the humble opinion of the present writer that Science Fiction owes much to Richard Shaver, and it may someday be said that Science owes him much. Who knows?

For those of you who have not started with us on the ground floor, this present story will cover for you the basic principles of Shaverism, chiefly in the tenth chapter. Although the plot and projected ramifications of Shaverism are original, Shaver material was borrowed from freely, owing to the fact that Mr. Shaver both publicly and privately, to yours truly, claims that these things are true. Far from pleading guilty of plagiarism, the undersigned contends

that he has tried, with respectful salutations to our good friend Shaver, to put in a plug for Shaverism by presenting it in the clearest and simplest light possible. (Don't read the 10th chapter first, however. What have I done!)

If there is truth to Shaverism, which there may well be (for reasons other than the fact that Shaver is not a prevaricator), then modern science, religion, history and philosophy have deceived us. And if Shaverism is true, any author not truly connected with Shaver's sources has no business pretending his own Shaver based story is true or based also on such direct sources, because by distorting vitally important facts he can do the world a great harm. Therefore, let it be clearly stated at the outset of Prometheus II, that the story is pure fiction, and that its chief Shaver aspects were drawn from the fertile field of Shaverism and not from Shaver's sources.

*S. J. BYRNE,
Lima, Peru.*



SOMEWHERE within the youngest mountains of the world is a man who sits on a magnificent throne, in a great palace in a great cavern. The cavern is a mile long, but it is only one small part of a vast chain of caverns, which in turn are connected by man-made tunnels to an incredible system of deep caverns which, if followed, could lead one even beneath the seas and to other continents—even to America. But these connecting tunnels are walled off and heavily guarded against a dread and ancient foe, against the cruel, detrimental forces of Hell, itself. And this place which dares to resist and stand firm through the ages of time against the evils of the Pit is a secret and wondrous place whose name is known to thousands of advanced mystics on the surface of the world. It is called—*Agartha*. And the great man who sits on the throne is called the King of the World.

In fact, he could enforce his rule upon all the surface world, if he were confident that he could first conquer and control the jealous foes of *Agartha*. This is all that holds him back. His conquest of the surface world would be a benevolent one, be-

cause his weapons could render us as helpless as white mice in a cage, and without killing a man, for those ancient weapons were fashioned, in unthinkable eons past, by the hands of wondrous beings whom the surface people, in their egotistical disdain of things they could not reduce to their own limited understanding, called the legendary "gods" of the heathens.

This King of the World is ages old, yet he looks as ever-young as Apollo. Although a great science is behind the reasons for his immortality, the surface folk would call it miraculous. In his cool, benevolent eyes is a power and fearlessness mingled with vast wisdom. If he were fully the King of the World there would be no more of wars and fears and wasteful bungling.

Once every fifty years or so, this King of the World is accustomed to making an oracular statement to his people concerning the coming events for the next fifty years. The previous prophecy had been made before the turn of the century and had been noted by a certain Russian who was privileged to be present. This prophesy was brought to the surface world and pub-

lished (as may be definitely substantiated—author), but no one seemed to take it very seriously, until the events predicted began to happen with mathematical precision. He predicted World War I, he told what powers would be involved and what would be the consequences. He also predicted World War II.

On the night of August 14, 1945, however, he was moved to call his people together to prophesy again. . . .

"This great surface-world war, which I have predicted," he said to them, "has not really ended. It has left too many things unsolved and unconquered. In twenty years the dragon seeds sown by this war will sprout overnight into full bloom, and it will be worse than ever. America itself will totter on the brink of disaster, under the merciless blows of the most ruthless Dictator of all the present surface-world's written history. But the threat of this one man will not be the only shadow to darken the light of hope for surface men, for he will bring with him a horror so great and overwhelming that even he, himself, will seek to escape from it. He will seek to make a treaty with—*our most despised enemy.*"

The assembled elders of Agarathi and all the entranced people behind them gasped in horrified amazement. He raised his hands for silence. His great, deep eyes looked far into the corridors of time.

"Our enemy shall then be strong, and much more organized than he is now. Our foe will of course betray this stupid surface man, and he will threaten the world with what Christians refer to as Armageddon. At a time when we of Agarathi are as yet unprepared, *they* will make ready to strike, and it will be a dark and tumultuous time for all the world—a black hour of hopelessness and despair. . . ."

"But let us then prepare ourselves now to deter *them*, oh my King!" cried one of the elders, greatly troubled.

The King again gestured for silence. "There comes to my mind a sense of something which is incomprehensible to me. I seem to see a common variety of surface man who in that hour—in that hour—will help *us*, although I know not what thing a surface man could do to—" The prophet looked with a wondering expression as though into a world which lay within himself. "I sense a tremendous power, like that of one of the Elder Gods, and with this

surface man I associate the ancient legend of Prometheus, for there are many points of similarity. But I know not what that power will be, nor whence it will come."

"What is this man's real name?" queried another of the elders.

"I know not, nor can I see his face, because he goes disguised to the work of world salvation. There is nothing more beyond this event, except that Agarathi will work *with* this man, and he will do a wondrous thing that is too stupendous for me to grasp."

"And what else is there?" asked another elder.

The King's eyes focussed at last upon the assemblage before him. "That is all," he said.

And they knew him well enough to know that he would not prophesy again until the mysterious event predicted had come to pass. . . .

CHAPTER I

The Dictator

"JUMPIN' catfish!" said the Quichua Indian.

He shaded his black, hawkish eyes and his high, brown cheekbones to inspect a whirring object that was marring the perfection of a clear Bolivian sky. By means of a dusty rope he halted the march of his bushy-haired burro, and watched intently as the sinister object drew closer. Then he turned suddenly and continued his way toward Santa Cruz. He sucked coca juice out of the sodden wad in his cheek and spat it perturbedly at the dirt which apparently represented the land of his sadly duped ancestors.

"Get along, Fuzzy," he addressed the burro, in Yankee English. "But keep a straight face, will you? That Russian buzzard thinks we're dead meat, and unless your uncle does some fast thinking he may be right!"

His own face was as expressionless as stone, except for a flash of inextinguishable hatred and bitterness in his eyes. His pulse beat a little faster now to keep up with the rate of his thinking, because he knew with a certainty that somewhere within the next ten minutes he would either kill someone or be killed, himself. As calmly as possible, he calculated the speed and angle of



descent of the thing above and behind him and how soon his own painfully slow progress would bring him to the turn in the road ahead. There was a fairly high bluff there, topped by the incipient brush of the Bolivian *montaña*¹. If he could just get around it in time to avoid getting shot before making a dash for cover!

SLOWLY and almost noiselessly, the shiny black rocket-gyro drifted on its whirling blades toward the two quaint figures on the road below. Twenty or thirty years before, the appearance of such a contraption over the hills of Cochabamba or the passes and jungles beyond would have caused considerable excitement among the sparsely distributed inhabitants, but in this year of 1970 everybody south of the La Paz-Asunción line had become accustomed to the Russian occupation and to all the ultra-modern paraphernalia of the Great

War of Domination. The only feature about this particular gyro which had startled the Quichua man was its jet black paint job and the dreaded symbol of a Russian eagle with a golden cycloptic eye emblazoned on both sides of its hull. This meant that its pilot was an armed agent for the Military Security Guard. Such agents only showed their colors like this when they were intent upon the official business of making an arrest. For the Indian shuffling along toward the turn in the dusty road, the appearance of the sinister little ship meant that his "game" was up.

The dark-skinned gyro-pilot worked leisurely and methodically. He raised his binoculars from his quarry to the country beyond. Here below was the last of the hills. The scrubby *montaña* of the Bolivian *Oriente* began to take shape in this section. Beyond this point he saw the jungle's green mat stretch hazily away under wandering flat clouds, broken here and there by glistening stretches of the shallow

¹ *Montaña*. Typical low, scrubby jungle of the Bolivian *Oriente*, *Pando* and *Beni* regions—author.



"America itself will tremble on the brink of disaster," the King said. The assembled elders of Agarthi gasped in amazement . . .

Rio Grande. He knew that somewhere out there, not too far distant, was Santa Cruz.

He slipped his binoculars into their case and spoke into a radiophone. "Security scout 13-6-32 calling Zone Seven," he said in Russian. "SS 13-6-32 calling Santa Cruz—over . . ."

"Zone Seven Headquarters to SS 13-6-32," came a sharp reply. "State your mission. Use code three. We are alerted."

The pilot flipped a switch on his transmitter which set an automatic speech jumbler into operation. "Coded dispatch to Zone Seven," he announced. "Zone Six Security requesting liaison assistance in connection with the arrest of an enemy agent now in your territory. Name, Stephen Germain. Nationality, U.S.A. Disguised as a Quichua, *Paceño* type. Identification record filed at Cochabamba revealed that he is licensed to travel to Vallegrande for induction into rubber exploitation work, to be assigned to the *Pando* Indian Labor Division. His apparent objective is your experimental station, however, as well as possible sabotage of the serum plant.

"Subject was detected yesterday by

method fifty-eight. For case evaluation, refer to Espionage Bulletin A-8147. Requires special handling.

"I am going to make the arrest. However, our instructions are to turn this man over to Zone Seven—if taken alive—for custody at Santa Cruz until further orders. Have two of your men meet me to receive the prisoner. I am landing on the road two kilometers west of your Transportation Inspection Office Number Five, position AZ-17. Please confirm."

After a short moment of silence, Santa Cruz answered, "Zone Seven Security Office confirms your requisition. Proceed as planned . . ."

The pilot turned off his radio. While he loosened his radium pistol in its holster, he smiled grimly at his quarry who was just making the turn in the road.

"Now for the cooking of a prize goose for Nicholas the First!" he said, and he bent purposefully over his landing controls . . .

AS SOON as the big bluff at the turn in the road hid him from view of the descending gyro, Germain shooed his burro

down an embankment into the woods. He followed for a short distance, making sure that his sandals would show their tracks in the brick red soil. Then he stopped and took off the sandals, thrusting them into his belt underneath his colorful poncho. He removed his *Paceño* hat and also the poncho, which left only his ragged trousers. His braided black hair and his enigmatic, far-seeing eyes, together with his hooked nose and high cheek-bones gave him now more of the appearance of an American Indian, but his sinewy body bore the stamp of a scientifically trained athlete.

"Good luck, Fuzzy!" he said to the burro, slapping its rump hard. Then he reached the road quickly by another route, this time taking care not to make tracks with his bare feet. When he reached the road he heard the rocket-gyro's blades whooping to a stop and he knew he only had seconds to take cover. He scattered the dust of the road as he walked across it, in order to conceal his tracks. Then he grabbed roots and boulders on the bluff and very nimbly scaled it. At the top, he slid for cover under the bushes and then turned around to watch for his pursuer.

At that precise moment the pursuer appeared. He was a big, powerfully built Russian, dark-complexioned, but neat and efficient-looking. He wore the black uniform and shiny black boots and insignia which identified his special office. In his right hand he carried a radium pistol. He had left his cap in the gyro, probably because he thought its peak might obscure his vision. His hair was crew cut. Germain estimated, from the other's alert, business-like expression that he was nobody's fool.

Which was borne out immediately to be true. He went over to the embankment and listened. He saw the burro's footprints mixed up with the sandal tracks, but he did not follow them. He only listened suspiciously to the loud crashings which the burro was still making as it progressed deeper into the woods.

Slowly, then, he turned his head to look at the top of the bluff, a fanatical light of triumph in his eyes. Germain knew he had figured that an enemy agent seeking to take cover would not be accompanying such a racket. He would, logically, seek hiding in an opposite direction.

As the Russian found a place to climb

the bluff, Germain put on his sandals and hastily sought a good point of vantage for making an ambush. It was his only defense. He remembered the knife he had seen in the other fellow's belt. The air was hot. The bushes were full of ticks which were dropping on him. His pulse raced with an uncontrollable excitement. He swallowed hard. He knew that this hand to hand fighting between two highly trained veterans—the stakes being life itself—could be an awfully ugly mess. But this was it. This is what they had trained him for at the Strategic Services College. First objective: disarm the enemy . . .

He soon found a good place beside a small storm gully where he reasoned the Russian might pass. He hid behind a screen of bushes and waited, trying to suppress his heavy breathing, listening, thinking, thinking. . . .

Somewhere in Germain's ancestry was a full-blooded Sioux Indian woman, and that particular squaw had loaned her great-great-grandson an Indian's face. On just such things as these is destiny hung, for this had been one of the last deciding factors in his having been chosen to imitate a Bolivian Quichua. Certain special diets and other treatments had deepened the color of his skin beyond detection. He knew Quichua from previous adventuring and gold-prospecting days in Bolivia and Peru, as well as some of the difficult Aimará. So here he was, an agent of U.S. Strategic Services, infiltrated into Russian-held territory on a very difficult assignment. His general background as a veteran foreign news correspondent coupled with his training at Strategic Services was a double factor which was supposed to help him out in circumstances such as this. But now he was wondering to just what extent:

"They must think I'm pretty stupid, though," he told himself, under his breath, "to figure I'd not be wise enough to what that gyro was doing on my tail. I knew ever since I passed that fancy detector-ray gadget at the clearance gate out of Vila Vila that something had slipped up. I've got my pass, I've got my identification tag and am carrying no equipment an Indian shouldn't have. But somewhere there's been a slip-up, and I'd give a week's furlough in California to know what it is." His brows closed in over his glittering, black

eyes in a pensive frown. "But I've got to get through to that damned experimental station and hash up Doctor Borg's serum factory—or bust!"

"*Ochen korosho*," called the Russian, suddenly. "If you want to play games, Mister Germain, how do you like this!"

BLUE-WHITE spheres of flame burst all about him, reducing the bushes and trees to ashes where the explosive radium bullets struck. Small rodents squealed in the underbrush. Then—silence.

"You must not hide from me," the Russian continued, coming closer, up the storm gully. "It makes me very nervous."

Germain only remained motionless and silent. He could see the Russian now, walking tall and arrogant, looking about him expectantly. In another moment he would pass within a few feet.

"Come, let's give up this little game," the Russian persisted, in fair, over-pronounced English. "It is hot out here, and soon it will be time for supper. You don't want to—"

Crack! Germain's foot kicked the Russian's gun hand, which sent the deadly weapon flying. But in the split-second which followed he noted something he had not counted on and it checked his charge. The Russian had foreseen such a trick, because he had tied the gun to his wrist. It bounced at the end of the short cord and he caught it deftly, firing at the same instant.

Germain was running for his life in the dense brush, while globes of flame blasted the roots out of the jungle around him. He ran for a certain *arroyo* which he had passed on the way. It was not far. There were big boulders there, in a twisting canyon. Plenty of cover.

The Russian was not firing any more, nor was he making speeches. He was running silently after him. Somewhere, sometime within the next minute or so, the score would be complete. So far the Russian had all the points.

Germain found the *arroyo* and rolled down a semi-cliff, picking up several bone bruises on the way. He scurried behind a boulder and waited again. The Russian arrived and clattered down into the canyon without a moment's hesitation. He grinned derisively and took up a position against a granite cliff wall where he could

see several feet in either direction.

"Somewhere within my range you are hiding," he said. "You think you are very smart, you famous American correspondent, but I don't think so. You are hiding behind one of these rocks. If you do not come out with your hands up I shall wait patiently until you reveal your position, and then you will die. It is quite simple."

Once, Germain heard by the sound of the other's voice that his head was turned in another direction. So he peeked quickly at him and ducked back. He knew that the Russian was standing only fifteen feet from him, leaning against that granite wall.

In Germain's mind a desperate, long chance plan took shape. It involved the intervening distances between several giant boulders that lay between him and the Russian, some very silent footwork, careful listening and timing—and an old, old trick that was so naïve that it was not even in the books. It was a silly child's trick, but it had to work, because there was nothing else. With a prayer, he removed his sandals.

The Russian, confident of his advantageous position, and mindful, too, of the additional assistance that would soon be arriving, began to talk again. Actually, it was a deliberate attempt to give Germain a false sense of security.

"You know," he said, "I can't understand why your Democratic Nations do not surrender to us. We have conquered the world, of course with some small help from our Asiatic allies, but always under the guiding genius of Nicholas the First. And incidentally, Mr. Germain, you may be privileged to see our great dictator sooner than you imagine. He is very anxious to meet the man who slandered him with hideous lies in all the democratic newspapers of the world. You Americans forget that freedom of the press is a form of social degeneration. But—"

To his right, twenty feet down the canyon, he heard a small pebble clatter. He fired in that direction, then, startled, he turned and fired in another. But it was too late. The child's trick of the pebble had distracted him just long enough. Something not so childish followed. A boulder, measuring about ten inches in diameter, caught him squarely in the face, smashing his head into a spurting pulp against the



He lifted a boulder, ten inches in diameter, and hurled it with all his strength . . .

cliff. His body slumped to the ground, gun loose in a limp hand. Silence . . . A hawk circled overhead, high up. Deep in the woods, the frightened chirp of a bird.

Germain, singed by a wave of hot air which blasted off the rock from the radium shell's explosion, picked himself up painfully. Wryly, he looked around the boulder at the dead Russian.

"Jumpin' catfish!" he muttered. He went over and picked up the gun and then turned quickly away.

SOMETIME later he crossed the road again and put on his poncho and his *Paceño* hat. He found the burro deep in the woods. Before going on, he sat down on a tree stump to take a rest. It seemed to help, somehow, to talk to the burro.

"We've got to do it, Fuzzy!" he said.

"Got to get through, even though it'll be tougher sledding now that they're gunning for me. If we don't get hold of the secret of this energy serum that Borg makes for the Russians and the slant-eyes, we're done for, unless we want to go in for a round of atomic bombs. But that's useless, outlawed, mutual suicide."

For long minutes he sat and rested. His thoughts went beyond his immediate goal to greater ones which lay beyond the war. No nationalist, Germain. He had dreamed of universalism, of Utopian security and positive freedom for all Mankind, emancipation from the blinding slavery of continuous labor and dedication to the higher

task of bettering mind and soul, so that henceforth Wisdom might rule over Ignorance and Brutality. He had once believed these things to be possible. As a news correspondent and editorialist he had tried to fight for them.

Yet now it seemed that such dreams were farther from the possibility of realization than ever before. The New World State of the Russian Dictator, Nicholas the First, had Europe, Asia and Africa in its grip, as well as a substantial part of South America. But this was no Utopia. It had turned out to be neither communism nor socialism. It was just another Hitlerian megalomaniac dream of conquest. It was subjugation and hopelessness. The Democratic Nations were writing the darkest pages of their history.

"No!" he exclaimed, slamming his fist

into his palm so suddenly that the burro shied away from him. "We've still got to beat them at their own game! Counter espionage and counter invention. If we don't fight now, there will soon be nothing left to fight for."

He spat out the forgotten chunk of coca from his mouth and wrinkled up his nose. "What lousy stuff! This fake coca is worse than the real drug." Then his hard expression drifted away, revealing a man besieged by loneliness. "Sometimes I'm tempted to take the real stuff," he muttered, bitterly. He thought of his wife, Lillian, whom he had left in California. He had not been able to communicate with her since being infiltrated here one year previously.

He heaved the long, lonely sigh of a man who knows how to appreciate a good woman. And he wondered, deep down in, if he would really ever see her again. His chances were narrowing down. A captured



spy had never been worth very much, he reflected.

"But there are ways and means," he said, getting to his feet. "Come on, Fuzzyl! Let's pull some woods in behind us!"

THE old Pan American-Grace Airways airport hotel at Santa Cruz was now Zone Seven Headquarters for the Twelfth Russian Army. Everything was quite suitable. Ample quarters for officers, with hot and cold running water, refrigeration, fresh meat and vegetables—great luxuries for the jungle country. The local *hacenderos* had enjoyed a good farming season. The cattle were fat and numerous. The sleepy town, still topped with ancient red tiles, was restfully picturesque. Moreover, the *señoritas* were still as pretty as tradition had always claimed.

But this was also a remarkable hideaway for secret experimenters such as the famous Doctor Borg, as well as for such a strategic industry as the manufacture of serum which was vital to the progress of the dictator's armies. From Arequipa, Peru, on the west coast, clear to Montevideo, Uruguay, on a line running through La Paz, Cochabamba, Trinidad, Santa Cruz, Puerto Suarez and Asunción, the Russian forces held South America firmly. North of the La Paz-Asunción line, with the exception of such seasonally accessible clearings as Concepción, San Ignacio, San José, Roboré, and the like, stretched the greatest natural barrier in the world—tens of thousands of square miles of wild, scrubby jungle and swamps. The Russians, themselves, would not cross that in their next great advance. They would go around it, up through Peru, taking Lima and the oil fields at Talara, and on the east coast they would make São Paulo their first major objective.

So Santa Cruz was fairly immune to enemy infiltration. It was for this reason that Doctor Borg had chosen this spot in which to carry on his vast, secret experiments, as well as for the fact that the center of the South American continent seemed to be as far removed as possible from certain inimical influences in Asia which he feared much more than the Americans. But that was an inner secret of State which he shared only with Nicholas the First and three others.

At Santa Cruz, few of the men and officers pretended to know what was kept in

many of Dr. Borg's long sheds and bomb-shelter like control cells. If they were aware of human disappearances around town or if they had heard wild, maniacal shrieks at night they were wise enough to keep their mouths shut and consider themselves fortunate to be on the conquering side of the fence.

BIG, fattish Major Sergeyev Pavlovich winked one bushy-browed eye at his important guest and invited the latter to some more vodka, with an affected gesture of his meaty hand. "So we are letting them believe that the Grand Attack is scheduled for January?" he said. "Ho! Ho! That is a good one, Colonel, when we shall actually attack them in December!"

Tall, gaunt old Colonel Andrew Golovinsky was also well pleased. His medals tinkled merrily as he chuckled and curled one end of his prodigious gray mustache about his index finger. "They also have little information, it seems, concerning the plans of the Mongolian airborne armies. These latter will move *en masse*, you might say, to Central America, concentrating on Panama and Mexico simultaneously. After that, we shall entrench ourselves and make ready, in six months' time, to drive upon the United States' homeland."

Pavlovich's brown eyes flashed genuine enthusiasm. When he became excited his brows closed in over a big, hairy wart that grew between them, and his fat nostrils flared redly. "Then will the decadent Democracies realize," he said, "that they were too slow to relinquish their accursed capitalism and accept with open arms the wise doctrines of Nicholas the First!"

"You speak the words of a true Russian soldier, my good Sergeyev," said the old colonel, looking at the other out of pale, blue-gray eyes. Then he looked up and gazed momentarily in admiration at a brilliantly colored mackaw that had just alighted on the roof of the hotel. It was comfortable here, and heavenly warm, he thought, even in the shade as they sat in the patio in the late afternoon. It imparted to him a glowing sense of well-being. This was a great relief after the cold, thin air of lofty La Paz on the *Alto Plano*. With a barely audible sigh of contentment, he took out a silver snuff-box and proceeded to snuff a few delightfully bitter grains up his nose.

"But tell me, Colonel," said Pavlovich, with an air of ambitious hospitality, "you did not come down off the *Alto* just to visit, I am sure. What else is new? Why, for example, are we alerted in this God-forsaken outpost?" The allusion to God was a figure of speech, as all new World State fanatics were atheists, by political rather than philosophical doctrine.

Colonel Golovinsky took off his monocle and polished it methodically. "That is something I can't tell you," he said, with official secretiveness. "The whole thing is—ah—quite surprising, or at least it will no doubt be for you. But nothing to worry about, really. On the contrary—"

At that moment, an orderly clicked into the patio and saluted. "Your pardon, sir. An operations report from Security." He flipped out the paper and stood like a statue.

"Hm-m," said Major Pavlovich, "what have we here?" He took the sheet and waved the orderly off with a lazy salute. Then his eyes suddenly widened. "What's this! An enemy agent!"

The colonel was only mildly surprised. "You knew we were experiencing some infiltration during the past few years, over the *Alto*, out of Lima," he remarked.

"But they were caught and shot!" said the major, incredulously. "This one almost made it to Vallegrande! Ye Gods! And with Borg's project wide open here! Somebody should have tipped us off sooner! If the Americans ever found out how to produce our energy serum alone they would cost us another year of effort. And if they succeeded in sabotaging the serum plant!"

"You will find considerable information in the General Espionage Manual supplements," said the colonel. "This particular agent has been in Bolivia for a considerable time. Our Security Command Headquarters have been trying to trace him for months. He is very clever, I understand. They had to lead him into ambush, so to speak."

"Hm-mm. Not so clever," said the major, still perusing the report. "Method fifty-eight. Ha! I know about that. He was chewing fake coca. How does that treated coca really work under the detector rays? Perhaps you could enlighten me on the entire strategy of the system. There are so many new things. It is difficult to keep up to date out here."

THE colonel was pleased to explain. "When Dr. Borg and his serum plant came to Zone Seven," he said, "the whole area became critical. We knew there would be renewed attempts at enemy infiltration. The most obvious disguise would be that of an Indian, although a really professional job would be difficult to detect. One characteristic common to all the Indians was the coca habit. This is as invariable as their thirst for *chicha*. As through ignorance and poverty they fail to provide themselves with the necessary vitamins, their systems seem to crave a substitute, just as a dog will eat dirt in an attempt to satisfy a vitamin deficiency. So all the Indians must have coca, *para darse valor*, as they say. It is universally traditional, even among the children.

"It was a simple step to place coca under the *estanco* or government reserve control, and then it became a simple matter for us to 'prepare' the coca with a tasteless ingredient which was very slightly radioactive. Their bodies get saturated with the stuff. Of course it kills them off in a few years, but we shall not be requiring Indian labor here much longer, and the increased death rate is in conformity with World State's policy of population reduction, that is, with the exception of the Slavic races, of course. These latter must be increased to outnumber the Mongolian races, as our wise leader has foreseen that complete security will not be ours until we have dominated the yellow men as well. However, the chief current value of this treated coca is for security against espionage, as has been borne out so successfully in case of Stephen Germain.

"The new detector rays at Vila Vila are different than ordinary ones. As each Indian passes them, the operator hears a little buzz which identifies the radioactivity in his body. Naturally, an intelligent, self-respecting agent will never take habitually to real coca because even the untreated variety dulls the mind. So when Germain passed the rays and did not produce a buzz, the operator reported it to Zone Six Security. Security allowed him to continue, under observation, to see what direction he would take. As had been suspected, he did not take the direct branch to Vallegrande, but continued toward Santa Cruz. This is catching him red handed, even as an Indian, because it's in violation of his forged



Nicholas I

license."

Pavlovich looked at the report. "I see a Zone Six Security Guard was to make the arrest at 2100. That was about an hour ago. Two of our own guards went out to receive the prisoner. That is good. But why do you suppose he is to be held here for custody?"

"You will find out. All I can say is that it would have been worse than you think to have an enemy agent operating freely in our midst this week."

"Why, colonel?"

"I repeat that I am not permitted to tell you, Major, but you will soon know." The colonel got up out of the green lawn-chair and groped in his inner shirt pocket for a Brazilian cheroot. "You will find out tonight," he said, striking up a flame from his lighter. "At about four hundred."

"Four hundred—that's midnight!"

"Correct, Major Pavlovich. It would be advisable to stand by on the alert." The colonel wallowed luxuriously in a dense halo of cheroot smoke. . . .

THAT night near midnight Major Pavlovich knew, at least, that the colonel's deep secret involved a transoceanic jet-plane. This much Radar had already told all observers in Zone Seven. Security reported that the ship was cleared through special channels. The Security officer in charge appeared embarrassed, but he said he was under orders from Security Command at La Paz not to reveal anything about the strange ship's mission. However, Major Pavlovich saw that the fellow's unusually ruddy face was pale with suppressed excitement.

"Hell!" Pavlovich told him, smashing out a cigarette with his boot-heel. "Take it easy! As long as we're not in for a raid—which I didn't think anyway—nothing else is worth foaming at the mouth about!"

"Sir," continued the officer, "we are worried about our two operatives who were dispatched to bring in the American prisoner, Stephen Germain. They should have returned two hours ago. There has been no sign. I haven't any other aircraft at my direct disposal. Perhaps—"

Pavlovich was impatient. He had begun to suspect the magnitude of the event which was to occur at midnight and it had dwarfed all other considerations into insignificance in his mind.

"Stop worrying, will you?" he said. "You can take a couple of my A57-Scout jobs out if you want to. You'll probably find those guys grounded by maintenance trouble. You know that pick-up job of yours is an old clunker. I never did like those old-fashioned turbine gyros. Give me a report in the morning. I'm busy!"

He went out to the airport, hastily wiping sweat off his fat brow. He was vaguely aware that he had not acted quite efficiently in this matter, but all other matters of office had to wait until he attended properly to this affair which was about to occur. He was beginning to have an idea of who his visitor might be, though he could hardly dare to hope. He straightened his tie and had a look at his uniform, while his husky heart began to pound.

There in the passenger compound, talking to Colonel Golovinsky, was Dr. Borg, dressed in tropical white. The way he waited, you could tell he *knew* what was going to happen.

"Good evening, Major," he said. "You look as though you shared already the excitement of this glorious occasion with us."

The doctor was a shrunken man with a big, grizzled head, a pock-marked face and a clay-like complexion. When he grinned it was more like a toothy snarl. It was difficult to take to the fellow. Little things about him rubbed you the wrong way. The ever-present sparse stubble on his chin, for example, which he never seemed to shave down completely, and the way his left eye twitched and made itself smaller than the other. His big, warty hands with purplish veins, the right one always grasping the ivory nut skull head of his silver-tipped iron-wood cane. And his crooked limp. He was a famous but an ugly man.

The major had no further time for contemplation of Dr. Borg, for the giant jet-plane swooshed majestically overhead. A vast, blacked-out bird, wings slanted sharply back for supersonic velocity, now flashing a fiery, cycloptic eye at them as it maneuvered to pick up the landing beams. Lights, signals and active ground crews suddenly filled the warm, tropical night.

"Here she comes!" he said, and waited.

When the plane door opened and its interior companionway lights flooded the platform of the passenger ramp, Major Pavlovich knew that the incredible had

happened. For there, in all his authoritative person, was none other than Nicholas the First, Dictator of most of Eurasia, the most powerful ruler the world had ever seen, founder-to-be of the world's first universal government! Here, in little Santa Cruz, way out in the Bolivian jungle! For the first time in his life the major felt like fainting.

The reception light beaming from the hotel tower took in the passenger ramp and fully illuminated all figures emerging from the ship. A lieutenant general and two colonels followed Nicholas the First. Shining boots, emaculate uniforms, gold braid, jeweled medals and campaign colors swarmed like a sea from the doorway, followed by the gravely groomed civies of men of state and the shining spectacles and bald heads and portfolios of special aides.

While a twenty-one rocket-gun salute sent blue-white flashes at the starry sky and frightened thousands of jungle creatures into the darkest recesses of their lairs, Nicholas stopped at the head of this avalanche of authority and took a full minute to survey the airport at Santa Cruz. It was the first time that he had ever set foot on the South American continent or filled his lungs with the indescribable air of the tropics. It was, he reflected, the old breath of conquest, but, like love itself, something ever new.

He was comparatively young. Forty-seven was not old for a man who enjoyed the special diets and treatments that were his to command. Barring accidents, he knew he could live to one hundred and fifty. One hundred years left in which to rule the world—*perhaps*. Of late, dark shadows had clouded his bright vision of triumph, ghastly, nightmarish shadows of which he could not speak, except to Borg and three others.

Tall, muscular and trim in his white uniform, with one dazzling ruby and diamond studded Star of Honor on his chest (the highest state award for social contribution, invented by and presented to himself), he cut a figure which was not to be ignored by man or woman. His face, with its sharply trained Kaiser Wilhelm mustache and its short-clipped Van Dyke, was a handsome study in self-justified egotism, a habitual domineering attitude so thoroughly acquired as to be actually regal.

His eyes, above all, bore the mark of

all the Napoleons of history. For here was that rare, complete iciness which a conqueror must have to march to fame and power across the broken bodies of millions of men, women and children. Here was the self-centered megalomaniac logic which, once more in the bloodied history of Man, could construct and adhere to the fascistic doctrine that the End justified the Means. In the cold, intellectual eyes of Nicholas the First there shone the unmistakable sign of his negative greatness.

COLONEL GOLOVINSKY nudged Major Pavlovich and, with Dr. Borg, they stepped forward. After due saluting, the colonel addressed the dictator.

"Hail Nicholas!" he said, gravely. "You do us more than honor by visiting the Twelfth Russian Army in Bolivia."

"I am flattered beyond the power of expression," put in Dr. Borg with a deferential snarl, "for your personal note which only reached me yesterday advises that you have taken a personal interest in my latest experiments." It was obvious to all that there was something more intimate between Borg and Nicholas than either cared to reveal at the moment.

Nicholas had not moved a muscle, even to answer their salutes. Even when he spoke, his face was a mask. Only his eyes moved, piercingly. His voice was strong, but inhumanly flat.

"Yes, Borg, your experiments alone justified this secret visit. However, there is also something else. You," he said, impaling the major with a stare, "are Major Sergeyev Pavlovich, administrating officer of Zone Seven Headquarters, are you not?"

"At your service, sir!" spluttered Pavlovich, beating out another salute and cracking his heels ponderously. He did not like that cold fish stare.

"What have you done concerning the spy, Stephen Germain?"

"Stephen G.—? Oh, yes, sir, the enemy agent of today's report. Why, he should be en route here now, sir, in the custody of a detail which our Security Office dispatched this—ah—afternoon."

Nicholas got icier, while all the austere personages behind him glared disapprovingly at the major. "I have been following coded dispatches on this case on board," he said, eyes blazing. "If you had been doing the same you would know by this time

that he has *escaped*! Your Security Office must be having reception trouble or they would know this. Vila Vila has been trying to get you for an hour. Why isn't your auxiliary watch operating if you are under an alert?"

All this even surprised Colonel Golovinsky, and it embarrassed the old officer half way to his grave. As for the major, he seemed to stagger under the blow. But Dr. Borg, who did not appear to belong to the ranks of those who worried too much about authority, was prompted to conversation.

"No doubt," he said, calmly, "the agent will be apprehended before he can do us any harm, sir. After all, such comparatively petty matters should not occupy the attention of one such as your—"

Nicholas stamped one dictatorial boot, and his flat voice went up half an octave. "What do you mean, petty!" he shouted. "Major Pavlovich, I presume by your apparent ignorance of this case that you have also neglected to refer to Espionage Bulletin A-8147!"

For all the unfortunateness of his terrible predicament, Pavlovich remained a soldier. The big, hairy wart between his eyes submerged in folds of sweating skin as his brows came together. His fat nostrils flared out redly. He threw his big shoulders back and said, "Sir, I confess I left that detail to the Security Office."

Nicholas the First shouted, "Guards!"

At his command, two large guards of honor sprang to his side.

"You will deprive Major Pavlovich of all decorations, as well as the insignia of his rank!" said the Dictator.

In the entire airport of Santa Cruz there was no sound except the undertones of night wind sighing through the bordering jungle. Major Pavlovich felt his life unexpectedly shattered and crushed, for reasons not fully understood. But he responded in the only way he could. He clamped his big jaw tight and stood rock-steady at attention as his medals and insignia were brutally torn away and stomped on.

"Hell's unholy curse to this bastard of a Stephen Germain!" he thought to himself. "Just when I had a chance of making an impression! Of all people why did this have to happen to me! A thousand cursed damns! If I ever lay my hands on that dirty, foul American s—"

"Now," said Nicholas the First, "you will do exactly two things, *private* Sergeyev Pavlovich! You will go first to the General Espionage Manual and read Bulletin A-8147. Then you will get out of here and never contaminate my vision—unless, of course, you bring me Stephen Germain!"

"And if Stephen Germain is brought here," he continued, snapping his attention over to Dr. Borg again; "I order you to use him as your top guinea pig! You wanted a brilliant mind for your final experiment, Doctor. I can assure you that Stephen Germain's is that, though unfortunately somewhat distorted. Perhaps your special surgery will *straighten him out!*"

ONE hour later, in a dull quagmire of unvented rage and despair, private Sergeyev Pavlovich located Espionage Bulletin A-8147 and read:

"Germain, Stephen: American, born St. Paul, Minnesota, October 30, 1935. Profession, foreign news correspondent for Chicago Sun Syndicate, until outbreak of the war. Previously invested in Bolivian and Peruvian gold mines. Worked vicinity of Uyuni during period 1955 through 1959. Speaks Spanish and Quichua. Married Lillian Chapman, Chicago, 1966. No children. (Insert: Mrs. Germain has recently enlisted and is attached to the Airambulance Corps of the American Sixth Airforce, Caribbean Defense Command.)

"Subject inducted into American army June, 1967. Trained at U. S. College of Strategic Services, Maryland, in preparation for specific mission, infiltration into Bolivia for purpose of acquiring strategic papers and records from Santa Cruz, biological experimentation center which is currently under the direct technical supervision of Dr. Julius Borg. Reported in October as being at large in the vicinity of Cochabamba. It is suspected that he may be wearing the disguise of an Indian, owing to his knowledge of Quichua. All Security Guard offices of Twelfth Army Control Zones Six and Seven are hereby instructed to watch for this man.

"For special evaluation, the following special note is given: As a widely notorious foreign news correspondent and editorialist, Stephen Germain succeeded more than any other American in arousing the displeasure of Nicholas the First. For sev-

eral years, corruptly unbridled American press entities published this man's vile accusations and insolent slander against the first Dictator of Eurasia, making bold to invent inconceivable lies concerning even the personal affairs of our unimpeachable leader. Nicholas the First has sworn publicly to capture Stephen Germain and attend personally to his justifiable punishment. He has also offered one hundred thousand rubles as a reward for his capture.

"All operatives are warned that Germain is a One-A agent. Any plans for his capture most not be based on presumptions, as Germain is extraordinarily resourceful. This one American agent has killed two of our best counter-agents who were especially assigned to trace him. . . . *Special handling.* Supplements to follow . . ."

SOMEWHERE in the still, starlit hours beyond midnight, Nicholas the First and Dr. Borg held a very private conference just between themselves. To any chance eavesdropper who might have understood white Russian, the conversation would have sounded either incomprehensible, or mad, or both.

The meeting took place in the Dictator's private room, the simple facilities of which were far short of what his high level of living in New Moscow had accustomed him to. But he showed in his face that he was far more concerned about matters which had no connection with mundane comforts.

He sat at a large, polished desk which had on it nothing except a common napkin, a cup of coffee, a saucer, a spoon, and a bowl of sugar. He stirred the steaming coffee and looked for a long moment at his companion in fear, Dr. Borg.

Borg, never out of composure, pursed his ugly lips gravely and studied the face of the Dictator. He saw the face of a man who belonged to a rare but monstrous breed. Such men belong to no nation or principle. They belong solely to themselves, or if they perform allegiance to their kind it is only for the nefarious purpose of ill-gotten advancement at the expense of others, even if those others happen to represent Humanity, itself. Such men as he could fool the public into buying billions of dollars of weapons of war even when they were gasping for peace. They could wave their hands magically, before break-

fast, changing the price of the world's commodities, causing empires to tremble and fall, sealing the destiny of presidents and kings. Theirs was the power of an evil god. They did not appear to need a soul.

But here was one—perhaps the leader of them all—who was afraid of something. He was the bold and arrogant dictator of thirty nations; he was mightier than Hitler or Napoleon or Genghis Khan or Atilla. He would make history ring with his name, even though dissonantly. But—he was afraid of something, so afraid that he drank black coffee in the depths of the night instead of sleeping and had to take large doses of energy serum to keep going.

"It is your Achilles' heel," philosophized Borg, unhelpfully. "You reached too far, Nicholas, to guarantee your victory over the Americans. The very creatures with whom you made the treaty have always signified that the greatest rulers in our written history were but clay puppets whose power could have been snuffed out like a candle. How blind and idiotic does Man seem, applying the highest significance to his daily affairs when he walks all his life in the shadow of death at *their* hands. And you and Svenga conceived of making a *deal* with them! It is tantamount to making a pact with Hell! In fact, since we are no longer credulous of the Christian concepts of Heaven and Hell, actually they represent a real Hell, because those fiends cannot be trusted with their own mothers. If Agarthi still holds back its hand out of caution, then these others must be *something!*"

"But," protested Nicholas, "Svenga says that they confirmed agreement with the terms of the pact. If the Americans use a surprise weapon on us, or if our Asiatic friends turn on us with something unexpected which we can't handle, they'll use the ancient ray and annihilate any objectives we care to mention. In return for this guarantee, once I am in complete power over the entire surface world, I shall arrange to give them facilities in the matter of food supplies, raw materials, and furnish them with whatever slaves they may requisition."

"Very beautiful," said Borg, squinting in his irritable, ironic way. "But Svenga the mystic is no statesman, and you can't think of everything yourself. What you failed to realize is that you can't deal with

them like you would with any civilized nation on the surface. They live in their foul pits and caverns with poisoned minds. They can think only detrimentally. So any treaty with them would be diametrically disrespected in every point. This desire of theirs to organize and procure new food supplies and an unheard of number of slaves only means one thing. They are preparing for the invasion of the upper world; a thing they have dreamed of ever since they suspected surface Man of knowing anything about science. And Agarthi is unprepared. The man of Agarthi would have been our only hope, but then again, Svenga says that this so called King of the World is not in agreement with your principles. It's a classical dilemma which may turn out to be an epic paradox. Your supreme secret weapon you may not need, yet it may destroy you on the very threshold of victory."

Nicholas sweated, but he never lost his hardness. There still remained in his eyes that iciness, still that historical, negative greatness which made him a sinister individual and a man to be reckoned with, in spite of the almost supernatural forces which threatened him. The cold eyes flashed defiantly, almost madly. /

"Even *they* may not outsmart us, Borg," he said. "Of course, they may adhere to the terms, but if they do not, perhaps we can prepare a means of escape for ourselves as you have outlined. What you wrote to me was fantastic, but so are *they*. If they ever should dominate the world, I for one don't want to be here. Do you really believe that this experiment of yours will prove to be a way out? Ah, Borg, if you could give me one last ace to put up my sleeve, you and I could—"

"And Svenga?" queried Borg, with a knowing, sarcastic snarl. "And Stoyunin and Smirnovski, your confidential ministers whom you forced to sign the treaty?"

"Oh yes, of course, they will be included also, *if* you can produce that ace, and *if* it is ever needed."

"It may be needed," said Borg. He hung his heavy cane on the desk by its ivory nut handle. "Whether or not it can be produced will be proved by experimentation alone. My previous experiments were not successful enough, but now I think I know why. With Germain, if I get to use him, I have reason to suspect that I shall suc-

ceed."

Nicholas smiled sardonically. "To think," he said, sipping his coffee through thin, merciless lips, "that the brain of the man who slandered me to one world may prove to be a stepping stone to another . . ."

Then he suddenly noted the polished ivory nut handle of Borg's cane. The enigmatic hollows of the little leering skull glared at him. His own eyes blazed angrily.

"Why don't you get rid of that damned thing!" he shouted.

But Borg and his little Death's head only stared back in silence. . . .

CHAPTER II

The Man in Disguise

THAT night, out of Lima, Talara, Iquitos and Manaos, an American commando fleet began to take shape. Each wave of stratoships had been organized for its own specific task, but the work of all of them was so coördinated as to concentrate on one central objective—Russian experimental station, Zone Seven of the enemy's Twelfth Army in Bolivia. Primary objective: Dr. Borg's latest documents, and samples of the too successful energy serum, blitz weapon number one of the war. Secondary objective: to destroy the serum plant, itself. . . .

MAJOR "Slim" Kent turned the controls of the leadship over to his copilot. "You take her for a while, Lieutenant," he said, looking at the black light illuminated chronometer on the instrument panel. He checked his wristwatch. "I'm going to have a shot of coffee."

"Yes, sir," grinned the sandy haired copilot, whose commando black face almost made his teeth look radioactive. "You and that wonderful nurse! I'm not particularly asking for trouble, Slim, but if I got nicked up just enough to lie in sick bay under her gentle care on the way back I'd say the raid was a success. What a woman!"

Kent good-naturedly rumbled the other's hair as he left his seat. "The nurse happens to be Mrs. Lillian Germain," he said. "Ever hear of Stephen Germain?"

"He was a big time news correspondent, wasn't he? What ever happened to him? Get bumped off?"

Kent looked out pensively at the stars a long while before he answered. "I don't know," he said, finally. He cracked his knuckles, something his men were used to when seeing him work under pressure.

"Friend of yours?"

"Yes. We grew up together—all three of us."

"You mean Germain and the nurse?"

"Yes, and it's been a long time since the two of us have seen Germain. Over a year now. He's in O.S.S., operating in Bolivia. You missed the last minute briefing I gave the huskies tonight. I only got the dope ten minutes before take-off. One of our side objectives will be to look over any possible prisoners at Santa Cruz to see if we can find him."

"Is he that good?"

"Top rank. His assignment has been the same as ours is tonight. But he has been only one against all of them, and since he started out the objective has become much more important to us. Tonight we're moving in to help him out." Kent turned then and left the cockpit. As he stepped through the companionway he took out his pipe for a last smoke before the bell rang calling everybody to their battle stations.

LILLIAN GERMAIN looked up cheerfully as Kent stepped into the galley. Secretly, she was glad that the two other volunteer nurses had gone forward, because she wanted to talk to him alone.

She rubbed a white forearm across a tearful eye. "You *would* like onions on your hamburgers," she laughed. "I'm ruining my mascara!" The "mascara" in this case was the commando black which covered her entire face. Everybody on board was "blacked out" for the raid.

"The streaks make good camouflage," Kent grinned. "Do you good. Thanks for the chow, Lil. I see you guessed I was too busy at base to mess with the men. Will you guzzle a java with me?"

When they were seated in a tight little galley booth over coffee and hamburgers she stared out of her blackened face with big, blue-green eyes and said, "How soon will it be?"

"What? The arrival? Oh, we'll be letting down out of the stratosphere in about another half hour. At that time I'll have to get into the saddle again." He looked at the raven black sheen of her hair in

silence. He always found a sort of stability for his thoughts when in her presence.

"Michael," she said, using his real name instead of the more casual "Slim." "You know why I volunteered to be in with the other girls in the first wave of the raid tonight. Tell me, is there any latest O.S.S. information you have on *him*?" She searched his face, hopefully.

Kent slowly stirred his coffee and looked at her with a wistful grin. "I wish there were two of you instead of one," he said. "Then I'd know what it's like to have a real woman's love like yours, Lil. I've watched you during the long time he's been gone. I've been close to you, too close at times. But you've never faltered. Your thoughts were as unwavering as a bird-dog's nose, right on him!"

Lillian surveyed her companion fondly. She saw a rugged, mannish face topped by kinky, rusty-red hair, a symbol of his virile and tenacious personality. In his calm, gold-flaked brown eyes she read generosity and loyalty. The mustache and pipe seemed to be the logical accoutrements of his nature. Kent was a man and a soldier's idea of an officer.

She smiled in appreciation of his understanding. She knew, from childhood, that he loved her, but that the soft strong silvery chain of friendship had always formed a barrier more impenetrable than steel. For if Kent loved her he worshipped Germain with almost religious fervor.

"Thanks, Michael," she said softly. "I guess I'll always thank you for your understanding and consideration."

Kent took a long drag at his coffee and then got down to business. "I do know something else about Steve," he said, briskly. He was like that. He could take just so much of Lillian's tenderness, and then he would purposefully fend it off by being abrupt. "The latest information on him is only a day or so old. I got the dope only ten minutes before takeoff and only got to brief about half of the huskies on it. Steve got a message through from Cochabamba saying that he was entering the last phase of the operation. That means—"

Lillian's eyes widened with hope. "That means," she said quickly, "that he might really be in Santa Cruz by now!"

"Don't hope too much, Lil. The going is tough and Steve works as carefully as a master craftsman. He can't rush things

like that. However, if they captured him he might be there. We'll certainly have a good look around, anyway."

Lillian suddenly plucked out a handkerchief and hid her face in it. She trembled, and Kent heard soft sobbing sounds that shook him like an earthquake.

"Take it easy, Lil honey," he said. "Let's wait and see what happens."

"Oh Michael!" she sobbed. "When will Man ever get through destroying himself in useless warfare! When, oh God, will peace and happiness ever come to us! Kill! Kill! Kill! Is that the only destiny we have? I want a home and Stephen and children and peace and security! These are the simple things that make life liveable, but in this accursed world it seems that such things are too much to ask for!"

IN THE midst of a deep drag on his pipe, Kent thought of the pre-war Lillian, her tall, cool whiteness, her artistic, neat way of dressing, her love for blue colors, and her passion for flowers; the single dimple that she always used to have on the left side of her expressive mouth—that little natural beauty mark which disappeared the day Germain left and which had never returned.

He pushed away his coffee. "The word," he reflected seriously, "is in a hell of a mess, and you know as well as I do that we're in danger of really being taken over by the enemy. This is the darkest moment in the history of the democratic nations. We're fighting against great odds, Lil."

"Yes! The world is a mess because Man is a stupid fool!"

"Perhaps. But I think it's more than just that. I can never forget those great editorials that Steve used to write. His main theme always was: Don't *die* for a flag; *live* for it. All nations should unite against Ignorance which is the common enemy. His words used to ring like a liberty bell. He is a great man. He should be using his talents as a statesman. The world needs such leaders now more than ever. I hope to God he'll come back to us soon."

"Steve argued that our great technological advancements have added something new to Man's history and because of this fact history has no way of repeating itself according to previous standards. It's all a brand new situation never experi-

enced before, and what people fail to realize is that a new type of *thinking* is necessary."

Kent had forgotten the remainder of his food. He was warming up to his favorite subject, Germain's philosophy, while his eyes stared into space at the logical world of a universalist. "In every great era," he continued, while Lillian now listened more calmly, aided by a cigarette, "when civilizations or continents have risen or fallen, we have had *original thinkers* who could detach themselves from the vicious circle of stereotyped perspective and point out, in the midst of folly, the true road to follow. But in this terrible time when we need those wise men to guide us more than ever before, where are they? Whom have we had at our international round tables who could think beyond the private or national ambitions represented by their briefcases? Or who, if there have been thinkers, has had the courage to stand up for his convictions and risk his life for them, if necessary? If we had had men like that twenty-five years ago we'd be well launched on the road to Utopia right now.

"Man failed to realize that the World State will come, even in spite of Man, owing to fundamental laws operating in the evolution of human society. But he had a choice, twenty-five years ago, a choice between arriving at World Government rationally and peacefully, or through violence and destruction. Now that first choice is gone. We find Nature, itself, establishing the World State. It was inevitable that if Man failed to think, this upheaval should come and that one part of the world should conquer the other part. Modern technology made nationalism and production for profit as outmoded as feudalism.

"People without recourse to thought have thrown every label in the book at Steve. But he's neither communist nor fascist. He is a realist, a fundamentalist. He can see the handwriting on the wall. He can see that some new world *ism* is necessary for Man to get along. The democracies, he said in one editorial, have tried too long to use a Model T Ford carburetor on a 1960 Lincoln. It just doesn't work. In Nature, fundamental law says that the species must adjust itself to environment. If the species cannot adapt itself, it perishes.

"The Russians are not desirable world rulers, nor is any one nation or race particularly endowed to rule over Mankind as a whole. Nicholas the First, with his own personal *ism* which leaves the dreams of the great Russian thinkers shattered in its wake, will always be a tyrant. We will be biological cells of his state. But he became the ruler, good or bad, over thirty nations because he abided by the fundamental of adjustment, in this case adjustment to machine-age environment—production for *use* rather than *profit*. We have not. It has been a hellish mistake."

Just then, a bell rang. Lillian looked frightened.

"Michael!" she said, gripping his hands.

"This is it," he said, quietly. "Just remember the training you've had, Lil. I'm going now. Go to your post. We'll be diving through their radio shells in about ten minutes. Landing in half an hour. Good luck!"

"Michael!"

"Yes?" He had stood up and was hastily knocking out the ashes from his pipe.

Lillian came close to him. "This is just in case—and for old times' sake."

Kent, for a brief, flaming moment, gathered her in his arms and kissed her. Then he left her without looking back. . .

IN THE scrub jungle west of Santa Cruz the two searchers sent out after Germain from Zone Seven paused suddenly and listened. Far away to the east they heard the mournful wail of sirens. From their position on the bank of a low hill they could see searchlights fencing at the menacing sky.

"A raid!" exclaimed one.

"The damned Yankees!" cried the other.

"Where in hell did they come from?"

"They must have got wise about Nicholas."

"Damn! I hope we wipe them out!"

"We probably will. . . ."

NOT far from this place, Stephen Germain also listened and looked at the sky, but with opposite emotions. "Lord! What a sensation!" he exclaimed, under his breath. "To feel the presence of American forces again!" He wondered wistfully if his old friend Kent might be in the raid. "No, that's too much to ask for. Damn! If I had only accomplished my mission.

sooner I might have been there to get on board and go back with them. Wouldn't that be something!"

Just then he saw something in the sky which set his heart pounding. He could not believe his eyes. He thought, for one tortured moment that his imagination was pasting mirages on the starlit sky. At first it was just a lesser darkness against the stars. But it mushroomed out. He saw several of them, widely dispersed.

"Parachutes!" he cried, half aloud. "Yankee raiders!" He knew that these were the task group to take over the few highways that led to Santa Cruz. They would have collapsible jet cycles. These he could see falling attached to other parachutes. They would ride in toward the objective, bombing the road and shooting up any possible sources of reinforcements.

As a commando plunked into the bushes not fifty feet from him, a breath-taking possibility took shape in his mind. *Transportation to Santa Cruz!* By making a mad dash, a jet-cycle could make it in considerably less than an hour! The dead Russian's gyro was out of the question. Without equipment it would be a clay pigeon for automatic Radar and radio shells. Moreover, he had left it far behind him by now and a lot of Russians had been beating the bush for him back there.

So, with extreme caution, he began to stalk the commando. The radium pistol he had picked up from the dead Russian had turned out to be empty of ammunition and he had discarded it. But the commando would have a heavier weapon, which he needed if he was to join the raid. Stealthily, he crept up to within ten feet of the fellow. He could see him struggling to get out of his harness and it did his heart good to hear some clear cut Yankee cusswords here in the enemy's territory where he had spent one year going it alone.

"Hey buddy!" he shouted. Then he dashed silently to another spot.

It was well he did so because after a moment's dark silence an electric machine gun with explosive bullets reduced his previous location to smoking, cleared real estate—a new cabin site in the jungle. The commando had freed himself. He melted into darkness. But Germain knew he was still close by.

"I'm American!" he yelled, and he

jumped again. But the explosive bullets did not come this time. Perhaps, he thought, the commando did not want to reveal his position by firing, suspecting that he was contending with the enemy, as most Russians spoke English these days.

"Don't shoot," he shouted. "Hang up your flashlight and hide where you want to. I'll walk into the light with my hands up."

The woods produced a deathly silence. Germain was thinking a thousand troubled thoughts. Had the fellow run off and left him? Or was he the cold-blooded, precision type veteran who always shot first and argued later? He probably was. Maybe he was stalking him down at this moment! He cursed under his breath and grabbed dirt. He snaked away on his belly, slowly, looking back, around, everywhere, listening and waiting, as tense as a thousand springs.

Then, like a light from Heaven, he suddenly saw the flashlight. And he heard the bushes rustle as he moved back away from it. It lay in a tree crotch, pointing right at him.

"Get into the light!" said a rather nervous voice. "And hands up—no funny business!"

HE DID as directed. The commando saw, to his surprise, a ragged Bolivian Indian walk into the beam of light, his empty hands high above his derby-like hat.

Immediately, he got up out of his crouching position and came forward, sub-machine gun still tightly clutched and ready. He grabbed his flashlight and shone it in Germain's face.

"What the hell!" he said. "How come a ——— Indian like you can talk English? You're not an Indian, maybe. In fact—" The commando's eyes widened in an expression of surprise. "Hey!" he exclaimed. "What's your name?"

Germain changed his voice to the short-clipped tones of a commanding officer. "I am Captain Germain," he said, "attached to O.S.S. I'll have to have your gun and a cycle to get to Santa Cruz at once."

"This is the damndest coincidence I ever heard of!" the young commando replied. He was chewing a large wad of gum, which he came near to swallowing. His eyes glistened excitedly. "You fit the description all right. You're damned lucky



Pavlovich crouched in the jungle like an ape

we've been told about you, but our orders are to get you to one of the pick-up ships in the third wave. Sorry, sir, no gun."

"You mean one of the objectives was to pick me up?"

"Sure! Major Kent briefed us on that, and—"

"Kent!" cried Germain. "My God! Don't tell me you mean 'Slim' Kent!"

"Sure! C.O. of the whole show tonight. Come on! Let's pick up a cycle! I'll ride you in. We've got a helluva lot to do. Two hours for the first wave. Then come the bombers and strafers to wreck the serum plant and hold off Russian reinforcements. Right in the middle will come the pick-ups. We've got to move fast and snappy!"

CHAPTER III

Conflict

PPRIVATE Sergeyev Pavlovich crouched in the jungle like an ape. He looked up above him at the patches of stars which he could see through the tangled branches of the scrub trees. Great beams of white light swept the firmament. Huge sirens

shook the air with seismic force. He felt the vast sound in his solar plexus. Rocket guns at the airport and in the village batted radio shells skyward at the capacity rate of ten per second. Each one sought its target automatically. In just one minute the night had blasted itself out of a monastic calm into flaming, roaring pandemonium, all of which took him completely by surprise.

For private reasons of his own he carried a heavy calibre piece of equipment which he had stolen. It was a deadly Russian supersonic projector fed by a generating unit on his back. It had an effective range of only one hundred yards, somewhat like an old-fashioned flame-thrower, but all he asked of life at the moment was to get within one hundred yards of Stephen Germain, to blast his red corpuscles into sickly, watery protoplasm and return to Santa Cruz with his stinking corpse.

This had become such a mental fixation that even the raid could not be considered for long. "To hell with it!" he growled, and he turned his face once more toward the first transportation station on the Vila road. He was taking a short cut to

it, under cover, because he knew he would have to steal a roadcar to get to the territory where Germain had last been seen. Pavlovich was *persona non grata*, unsigned, without orders. But nothing mattered to him now. He wanted Germain. That was all.

As he walked onward, still not far from the airport, his path was lighted intermittently by the glare from radio shells exploding high above. He knew that many of the American ships and gliders were being hit, but he also knew that many others were piercing the anti-aircraft resistance by means of interference beams which jumbled the shells' radio guidance so that many missed their otherwise inevitable targets. The damned Yankees, he reflected, were still the smartest ones left.

"But we'll smash them!" he told himself, savagely.

Just then a big, crippled skytrain came floundering darkly down toward him, looming swiftly, blotting out the whole firmament of stars. It came at him, piling up jungle with a roaring, earthshaking plunge. Pavlovich flattened frantically before the steamroller, while a tree snapped over him, pinning him to the ground.

The large ship was on top of him, held off only by tough, tangled scrub tree trunks and branches. He saw black figures raining down to the ground from the ship all around him, and he lay very still, watching. This, he observed, was a tough, veteran crowd, armed to the teeth.

A muted, dull red light illuminated one operation close to him. Black figures scurried and worried about a large, gadget covered apparatus. He knew that these technicians were setting up a large sonic beam disrupter. It was big enough to disrupt all supersonics in camp. No deathrays tonight, he thought, if they get that thing going. It would cover the whole territory, unless someone could prevent its use.

He tried to use his own projector on the operators but he could not reach his generator switch. Then, suddenly, he felt the tingling of supersonic waves which meant that the disrupter was in operation. Too late. The Russian garrison would have to use straight bombs and gunfire—maybe some gas. This technological warfare, he soliloquized silently, always simmered down to old-fashioned fighting. Too many countergadgets. War was primitive no

matter how you dressed it up. But, after all, that was the way he liked it. His big muscles ached to get free for some hand to hand commando scuffling. Many an enemy skull had cracked before under his ponderous fists. But he was helpless now. He sweat the sweat of frustration. He almost cried aloud like a child.

Just then a Russian barrage of heavy calibre rocket shells tore the guts out of the woods. The ground jumped around like a chicken coop roof in a cyclone. Unendurable light hammered and flashed on him. Dirt flew at his skin and stayed there, a part of him. He chewed the ground, hoping to live through this blasting. Trees which had been changed to dust snowed on him as though a blizzard were blowing. He heard the cutting screams and gurglings of the crippled and dying mingled with sharp officers' commands. Then—comparative silence, except for muffled moaning sounds, the distant explosion of the radio shells high above, the rapid, deep *pum-pum-pum* of the anti-aircraft guns.

Two figures crept close to him. The sky flashed battle-fire, allowing him to catch glimpses of their faces, intermittently. They crept nearer, both of them looking in the direction of the airport, just half a kilometer away.

"It's hell!" said the biggest one, adjusting his steel helmet. "But I think we can do it. Their garrison is not any too large, apparently, in spite of the resistance they are putting up for the moment. However, you've got to move your unit back out of rocket range. Seems they got a reading on our ship when it crashed. You move back with the disrupter crew and I'll move up." He spoke into a compact walkie-talkie. "All groups hold fire! Huskies keep moving in! But stay off the field. Techs, keep setting up your artillery. Observers report in three minutes!"

Suddenly, Pavlovich noticed with some surprise that the smaller of the two was a woman. She had crept very close to him, within four feet. He was well hidden by leaves so that she could not see him.

RISING Russian manpower plus the personal philosophies of Nicholas the First had taken Russian women out of the armies and industries and sent them back to the home, or elsewhere, as the state de-

cided, so that during the Great War of Domination the Russian soldier was not as accustomed to carrying his womenfolk to the front line as were the hard-pressed men of the democratic armies. So the appearance of this woman beside Pavlovich in the thick of battle aroused his curiosity.

In the silent patches he could hear her. She was breathing hard from excitement, or exertion, or both. In her tight knuckled hand was a machine pistol. She wore the red-cross emblem of a nurse. The scraping of jungle branches had wiped half her makeup away, leaving a white cheek spattered with blood. Half her hair was down out of her helmet, raven-black, splashing like India ink across her shoulder. He lay there admiring her clean cut profile and the determined set of her chin. He had not known that Yankee women were like that. It was a revelation that tended to undermine some old convictions.

"I'll leave you here," said the officer beside her. "From the sound of these poor devils around us, your unit has plenty of work to do. So long, Lil, and God keep you!"

The nurse plucked at his arm. "Michael!" she gasped, afraid for his sake. "Please be careful!"

"Okay. If you're a good girl maybe I'll bring back somebody you know."

"Oh pray God that Stephen is here!" she exclaimed. Then she was left alone.

Stephen!—thought Pavlovich. *Stephen Germain!* And "*Lil*" was for *Lillian!* Pavlovich remembered only too vividly now what he had gone over so painfully in Espionage Bulletin A-8147. He growled inaudibly. So that was it! This dame was Germain's wife! What a combination! If he might get his hands on her, it would at least be half as good as getting Germain, and maybe holding her as hostage would make excellent bait. . . .

At that moment, the weight of the big ship above him shifted slightly. Pavlovich suddenly knew he was free to move. . . .

FOR forty minutes, Santa Cruz was a full-fledged battlefield. The commando raid was on a major scale, but the objective was not protected by a major garrison. Gradually, the Russians appeared to be beaten down. The core of enemy opposition backed into a huge bomb-shelter which the enemy seemed to be especially

anxious to protect. The Americans went after their main objective, Dr. Borg's papers and his serum. With the booty captured, they began a retreat. They returned to their hidden positions in the jungle and waited, waited for the second wave of bombers and fighters, which would beat off the reinforcements that were no doubt rushing in from La Paz, Cochabamba, Puerto Suarez, Oruro, Uyuni and Asunción. Before the enemy could concentrate in force, however, the swift jet pick-ups would swoop in by the hundreds and take away the survivors. By that time the time-bombs planted in the serum factory would blast the place off the map.

Two things marred Kent's triumph. There was no sign of Germain. And when he returned to the crashed leadship and the overworked first-aid group of the immediate attachment under his command, Lillian was not to be found. He had searchers out, but so far there were no signs of her. As officer in command he could not look for her personally, but he would have sacrificed his rank to look for her if it had been morally possible at the moment. Twenty minutes to wait before the second wave struck. A lot could happen in that time. And it did.

Suddenly, from the area of the Santa Cruz station buildings emerged about two hundred Russians. They came firing sub-machine guns, covered by a sparsely distributed rocket-shell barrage.

"Hop-heads!" was the cry along the line.

Kent had seen them personally before in spectacular mass action at the famous Battle of Salta. Russian soldiers shot with the famous energy serum—the miraculous stuff whose secret they had come to get, which he had captured already and was only waiting to carry away with him.

The synthetic supermen dodged and ran like football players, ducking, leaping, making themselves difficult targets. They wore bullet-proof jackets and face-armor, too heavy for normal men to carry, yet they ran like lightning, just like human tanks, firing fast as they came. In little more than sixty seconds they had crossed the open field and jumped into the jungle. From there on it was pot-shot and hand to hand. But even the tough commandos could not cope with these supercharged men. They were madmen fixed with one



Kent set up emergency staff headquarters
and they prepared for the second wave

idea, to kill or capture. They could break bones with their maniacal grips, even if their own normal bones had to break also under the terrific pressure of their python-like sinews. They smashed through.

However, at this time nobody chanced to take undue notice of two special Russian guards who came after the first advance. They had paused several times to bury certain objects shallowly in the ground in about five places. Then they came running after the rest.

KENT and his immediate detachment, with what they had captured, were rounded up and roughly herded back toward the station. Under the effects of the energy serum no man could serve as a commanding officer, so the Russians always sent with their doped fighters several untreated guards or officers. Two of these, the same two special guards who had buried the objects in the ground, now gripped Kent stiffly, one on each side, and walked him briskly ahead. The supercharged warriors, panting wildly, some foaming at the mouth due to drug reaction, pushed and kicked other American comandos along with them. Kent and the two special guards were out in front.

Suddenly, the guard on his right said in clear, Yankee English, "Run like hell!"—just loud enough for him, alone, to hear.

So Kent ran with the two guards. But they did not let go of him. At one place they pulled him sharply to one side and then ran on again with him. They had gotten a head start.

"What the devil!" Kent puffed, but he still ran, as bullets whistled and the wild Russians shouted. They started to sprint after them in a dense mass, leaving the other American prisoners sparsely guarded.

Then the earth shook. Five times, in blinding flashes, while arms and legs sailed through the air. Kent fell flat with the two guards, while plank-hard sheets of dirt and searing hot waves of blast-force seemed to iron him out.

"Land-mines!" he exclaimed.

"Jumpin' catfish!" said the guard next to him.

Kent suddenly took a startled look at the fellow, whose helmet had been knocked off his head. He saw an Indian with braided hair grinning at him.

"Steve! Steve Germain!" he shouted above the battle din going on above and the shrieks of the dying men behind him. "My God, where did you—"



"Shut up and run!"

So they got up and ran again, this time not so heavily followed. They could hear fighting behind them. The straggling Americans now outnumbered their captors, as the latter had taken the main blast from the land mines. Kent sensed that they would all have a chance yet, as this superman charge had been Santa Cruz' last flurry.

AT DR. BORG'S battered administration office, Kent set up emergency staff headquarters. A check-up by radiophone revealed that they again held the upper hand. Everybody was digging in for the impact of the second wave, which was due in a few minutes. Already reports were coming in concerning the multiple approach of heavy enemy reinforcements. It was going to be a big fight yet, although from this point on it would belong primarily to the American bombers and strafers.

"Steve!" said Kent, to his old friend when he had his first chance. He grabbed him by both shoulders and looked at him. "How in Heaven's name did you do it! Lord! Is it good to see you!"

"It's a long story, Slim," said the other. "I owe a lot to this young commando here."

He indicated his smiling companion who had first dropped into sight from the sky. "He deserves a medal!"

"Thanks, Captain!" grinned the commando, wiping his grimy face. "You're not so bad yourself! You thought up the strategy and went straight to the arsenal for those mines. I've never seen such a quick precision kayo job done on sentries before. I'll never forget it, Captain; it was an honor!"

"But how come you were able to locate me?" said Kent.

"That was the easiest part of it," grinned Germain. "Just had to make a beeline for the point of resistance that was drawing most of the enemy's attention. And there you were, just like the queen bee!" Germain's smile changed to an expression of concern. "You'd better brief me quick on what's going to happen. But first just tell me one thing. . . ." As Germain's black eyes searched those of his friend's, a quiver of wistfulness touched his brow. "How and where is Lillian?"

Kent's elated expression dropped from his face. His mind suddenly swam in black despair as he looked back at the other's face.

"Steve," he said, falteringly. "I've got

to tell you that—"

Just then a young lieutenant dashed in. "Pardon, Major Kent!" he said in uncontrollable excitement. "Sir, we've struck the jackpot! I mean—we're in great luck, sir! We can't break into that big bomb-shelter yet, but we know who's there. Got it from some of the prisoners! Nicholas the First is hiding there with Dr. Borg and a whole staff of Russian big name officers and confidential aides! He came here on a special inspection trip and we've trapped him!"

Kent and Germain looked at each other, pale even under their respective battle-smudge and camouflage. Now, however, there was too little time for exclamations of surprise. Minds had to work quickly, in spite of surprises.

Kent gave an order. "Guard that shelter as objective number one!" He turned to Germain as the soldier dashed out. "We've got to win through tonight!" he said. "It might turn the whole war in our favor if we could capture both the serum and the Dictator in one grab, if he really is there. Sounds unheard of, but it may be in our hands!"

Germain fixed a steady gaze on Kent and said quietly, "You were going to say something about Lillian . . ."

Kent's sweating, troubled face looked up suddenly, listening. A dull rumbling shook the building they were in. Everybody in the room stood still and listened. Trained ears analyzed the sounds as distant aerial battle and bombardment.

"It's the opposition!" said Kent. "They're fighting the second wave! Damn it! That's bad. Still, if they fight it out some place else, the third wave may—"

"*Notice something peculiar?*" said a strange voice suddenly, in a heavy Russian accent.

They turned and saw a big, grimy Russian climbing in through a blasted window. He had lost his helmet. His black, kinky hair was full of twigs and dirt. On his back was a generator unit, and in his big hands was a supersonic projector. He glowered at them from beneath bushy eyebrows which converged together, half submerging a hairy wart between them.

When he spoke, his nostrils flared redly. "Notice there is no tingle in the air?" he said, covering them all. "Your big disrupter is out of commission, *nyet?* I blew it

up. That means I can make pudding out of all of you with this!" He gestured demonstratively with the projector. "Also, your second fleet is being slightly exterminated—and your pretty time bombs will be shut off in time to preserve the serum plant. It is no use, gentlemen. The fight is done. You will drop your guns and raise your hands!"

Kent, Germain, and three other American soldiers in the room did as they were ordered. They could judge by the sudden commotion outside that the Russians were coming out of hiding with the supersonic equipment. Somewhere, a big projector had been set up and placed in action. They heard a few rounds of American sub-machine gun fire, some shouted orders, running feet, other shouts in Russian, then—*zung-g-g!* The deep, belabored hum of a supersonic projector outside brought ghastly stillness to the night, and Germain and Kent felt sickened at the thought of good American blood turning to water under the deathray.

"Which one of you is Stephen Germain?" asked the Russian.

Germain had his helmet back on, which covered his hair, but not his brown, Indian's face.

Nobody replied.

"I thought he might be interested," the Russian continued. "I got his wife locked up. Nobody but me knows where."

Germain was strained at the limits of self-control by this astounding statement. Lillian here! *Good God!*

THE almost impossible combination of joy and longing and horror could have broken two ordinary men. But he still restrained himself. Now he knew why Kent had twice hesitated to tell him about her. She had been in some sort of volunteer group with the raid, no doubt. She had been captured. After a year of being away from her and then having her so near—

"She is a good looking dame," the Russian taunted, his feverish eyes fixed knowingly on Germain. At the corners of his mouth showed flecks of spittle, a sign that he was under the influence of energy serum. For one second he looked like a fiend ready to deliver a *coup de grace* to a helpless victim. Then he said, viciously, "*I happen to know!*"

Germain sprang forward like a shot from

a bow, low down, underneath the super-sonic beam. *Zung-g-g!* The beam struck Kent's arm and killed a soldier behind him.

In a fit of maniacal rage, Germain pitted his highly trained body against the super-charged Russian's superior weight. Frothing, Pavlovich dropped the projector and caught him in a superhuman grip, intent upon murder.

At the moment that Kent, with one good hand, painfully picked up his gun from the floor, half a platoon of Russians invaded the place. In a matter of seconds they had everybody rounded up and covered, leaving a cleared space for the fight that was going on. Pavlovich had grunted something at them in Russian, and the corporal in charge stood by hesitantly and watched instead of interfering.

The Russian knew his commando tactics and had a highly developed repertoire of fould blows, but he was not as refined at Judo as was Germain. Twice, when it looked as though the American's neck were going to be broken, he recuperated by rolling over and sending the Russian flying against the wall. But the more Pavlovich got beaten up the more effect was brought out of the charge of energy serum he had taken. Bleeding, disheveled and torn, both men charged each other like two jungle cats.

For one brief instant they whirled around in an indistinguishable blur. Then Germain was down underneath Pavlovich. Blindly, Pavlovich tried to reach Germain's throat and cut his windpipe. He gripped his neck with both hands and Kent cried out as he saw Germain's eyes bulge and his face turn purplish red. Then Germain's wiry body went into an amazing contortion and Pavlovich found himself sprawled on his back, tied up in a clinch, with his right arm in a position where Germain could break it.

"Hands up!" came a voice that was as cold as Arctic snows. "Break that arm and you die!"

Germain, torn and battered, nostrils running blood, and with one eye already swelling shut, looked up from his victim straight into the glacial eyes of Nicholas the First.

The Dictator had made a surprise appearance, followed by Borg, Golovinsky, and what seemed to be a whole company of guards. He trained a beautiful gold-plated Russian radium-pistol at Germain. His

uniform was disheveled, but his triumphant carriage made that detail seem a trivial matter. He beamed at Pavlovich suddenly, as strong-armed guards brought the two men to their feet. Iciness gave way in his eyes to glittering enthusiasm.

"So you *did* redeem yourself!" he said, in English, so that Germain would understand. "I am told it was you who blew up the enemy's sonic disrupter and inspired this splendid counter-strategy! For this you will redeem your rank. And because you have captured Stephen Germain I shall consider you for the personal reward of one hundred thousand rubles. Colonel Golovinsky!"

"Sir?" The old officer snapped to attention at his side.

"You will please present Major Pavlovich's name for promotion to the rank of Lieutenant Colonel at your next planning council at Command Headquarters, and you may submit my special recommendation, on the basis of persistence of purpose, courage under fire, and leadership and ingenuity becoming an officer."

The colonel, somewhat flabbergasted, saluted and looked dubiously at Pavlovich. The latter's drug spell had subsided as the Dictator spoke. He stood proudly at attention and said, "Thank you, sir!" But he said nothing about Lillian Germain.

THE Dictator's eyes then turned cold again as he faced Germain. "If I know how to give just rewards," he said, in his flattest tone, "I also know how to deal with such depraved enemies as you, Stephen Germain! I have you at last! You may feel complimented that your capture represents to me one of my greatest personally desired objectives. I have in my hands at last the sniveling degenerate who sought to turn a world against me—*me!*" he shouted, tapping his chest. "You will find out that you were trying to cut off the only light of Reason in this sorry world! I am the only saviour of Humanity!"

"Hail Nicholas!" chanted the Russian guards behind him.

"It is I, Nicholas," he continued, "who will straighten you all out in your blind, stumbling, erratic paths! This is the world of Tomorrow! It takes cold logic, Mr. Germain, a *very* cold logic, to pick the *right* path to follow. You sick Americans have no leader to tell you what is right. You

dance to destruction and racial oblivion in a madhouse filled with leg-shows and juke-boxes! This is a serious era. Since you mismanaged the office of leadership that you once held in this world I had to rise up and take things under my own control. And it is infinitely better, and it will be best of all when I have finished dominating you stubborn, crazy, idiotic Americans!"

Germain figured that spitting in big shots' faces belonged to 19th century melodrama, so he fought the urge and remained silent. Another Hitler, was his only mental comment. His mind was still turning over a thousand thoughts in regard to Lillian. To think that she was here somewhere, and he helpless to get to her!

"Dr. Borg!" said Nicholas.

The stooped, dwarfish doctor limped forward. His evil little eyes surveyed Germain as a biologist might look at a prize litter of white mice.

"I hereby make you a present of this prisoner," said the Dictator. "You may do with him exactly as you please! He is your *total* property..."

Nicholas turned and stamped off with his aides and special guards. Several guards detailed to help the doctor took Germain away, followed by Dr. Borg, who evidenced on his ugly face the eagerness of an expectant father. Other guards took Kent in another direction. The latter strained to watch Major Pavlovich, just as Germain was trying to do. They both caught a last glimpse of him as he struck off in another direction with a definitely exultant step.

About them all crested the mournful thunder of war...

CHAPTER IV

Guinea Pig

LILLIAN GERMAIN had felt around in the dark closet for something sharp, something that could open her veins before the Russian returned. She was convinced that the raid had failed. She felt that her husband was probably dead—Kent also. She had seen so much of death, especially this night, that it seemed to her to be one of the most dependable of all probabilities. And now this Russian who had captured her and knocked her unconscious so that he could smuggle her into this hiding place had her exactly where he wanted her.

When she heard him enter the adobe cottage again, she shrank, nauseated, into a corner. It was cold. She shivered without her jacket. Her limbs ached where she had been manhandled. All that she could think of now, however, was that the brute was back again.

Pavlovich swung the door open, triumphantly, greedily. He reached in and yanked her out, mercilessly. His eyes devoured her tall, perfect figure clad now only in humiliating remnants of clothing.

"We have a little unfinished business," he said, in a tone that was as thick as his lips. He pulled her to him and kissed her neck. Her nails sought vengeance...

Just then someone banged on the door and it swung open. Pavlovich turned in rage to contemplate the embarrassed face of an orderly. The latter looked in amazement at the sight of a beautiful white woman in such an unexpected place and in such disarray. He gazed in momentary fascination at her voluminous, jet-black hair.

"Sorry, sir," said the orderly, after one dazed moment. "Orders from Nicholas the First. He requests your presence."

"Get out!" shouted Pavlovich. "I'll get there in time, man! Don't concern yourself—"

Just then a sergeant stepped up to the door. Pavlovich saw a whole guard platoon standing outside looking in. It was the 5 A.M. change of watch.

"Trouble, sir?" said the second man.

"No," Pavlovich replied, more calmly now. This, he thought, could turn out to be a scandal. He knew that word of it would get to the Dictator. As he straightened up his uniform he formulated a quick plan of action. He could not risk disfavor at this stage of the game. In fact, he thought with a growing smile, he knew how to turn this incident to his further advantage.

"Come on, you!" he said to Lillian. "Guard detail!" he commanded. "Two of you bring this woman with me!"

Nicholas the First sat having his breakfast at a great table in the bomb shelter. As the crowd of attendants and officers parted to admit Pavlovich, he looked up, suddenly aware of Lillian.

He paused in his eating, a choice chunk of toast and egg poised halfway between plate and mouth. The guards shoved her forward.

Nicholas lowered his fork and sat back, surveying her quietly but thoroughly.

"A blanket for the lady," he requested. As a light blanket was thrown around her semi nude form he said to Pavlovich, "Who is she? Or at least, where did you get her?"

"May it please Your Greatness," said Pavlovich, stepping forward, "I have also captured Stephen Germain's wife. I brought her to you as soon as I thought you would have a spare moment to consider her case, as I knew you would be especially interested."

The Dictator looked speculatively at the girl's disheveled state and the bruises on her bare arms. He cocked one eye at Pavlovich but did not express what he was thinking.

"Are you Mrs. Stephen Germain?" he asked, politely. Nicholas showed the Santa Cruz garrison for the first time that his eyes could reveal other things than their habitual iciness. A blasé charm momentarily illuminated his features.

Lillian had been somewhat astonished by the sight of the Dictator, but the way things were going she reasoned that anything could happen. She nodded her head to his question, but she said nothing.

"What are you doing here?" asked Nicholas, idly stirring his coffee.

"I am a nurse," she answered.

"Oho! So you volunteered to come with the commandos to Santa Cruz, no doubt hoping to find your husband."

Lillian searched the Dictator's now implacable features, wondering just what he was getting at.

"Well, you may be pleased to know that your husband is here, my dear," he said, watching her closely.

Lillian's head bobbed to attention. She took a step forward, a world of wonderment shining through the hopelessness in her eyes. "He is!" she exclaimed. "Oh please, please let me see him! Where is he? Is he all right?"

Nicholas smiled, enjoying himself immensely. "Oh yes," he answered. "Please be assured. He must merely undergo a slight—ah—operation. On the brain, I believe it was, isn't that right, Pavlovich?"

"Yes, sir," Pavlovich grinned back, in an ecstasy of well-being and self esteem. "Just a brain operation, that's all."

Lillian looked back and forth between the two and around at all the grinning, un-

friendly faces. "What is the matter with him?" she asked. "Has he been injured?"

"Oh no," said Nicholas. "But you see, after Dr. Borg has changed his brain around a little bit he will be of much greater use to us," he concluded.

"Dr. Borg!" exclaimed Lillian, horrified. "You mean—"

"Yes, my dear," sneered Nicholas. "Your precious, worldly wise news correspondent who knew how to slander the dictator of the world so well is going to be the subject of a great experiment. You should be honored. His name will go down in history as one of our most famous—*guinea pigs!*"

Lillian sank to the ground. She sobbed uncontrollably, head buried in her arms and beneath the copiousness of her dark hair.

"Take her," said Nicholas, "to my quarters. I wish to question her further." He kept a straight face, but there were others who smiled knowingly. Pavlovich did not smile . . .

"SLIM" KENT found his guard to be in a talkative mood, on the braggadocio side.

"From this experimental station will come the supermen of a super race," he said, in fair English. "Dr. Borg's energy serum is only a war weapon. He has accomplished much greater things."

"For instance?" Kent queried, raising dull, hopeless eyes from the floor of his prison cell.

"Well, take the mother farms, for example."

Kent had heard all about the mother farms, where fanatic Russian girls, as well as female prisoners, were used for breeding purposes in order to keep up the population for future expansion.

"That's nothing new," he said. "The Nazis did it before you were born."

"But you haven't heard of Borg's cosmic conditioner rays which cause an eighty-five percent occurrence of twins and triplets. Last week one wench had quintuplets!"

Kent recoiled at the horror of it. "Dogs is a good epithet," he retorted. "So humans come in litters now."

The guard sneered. "You fathead Americans!" he said. "Your race mentality has been distorted by blind adherence to your useless democratic traditions. You are in-

capable of adjusting yourselves to the world of Tomorrow. You have failed!"

Kent looked at the guard, bored. "What about these brain experiments I've been hearing about?"

"What? You mean the experiments in surgical mutation?"

"Surgical what?"

"They haven't told us much about that, but all I gather is that Borg thinks he can make a superman by altering his brain and supercharging it. So far, his victims have turned out dead or duds. Anyway, rest assured that the end result will be another successful contribution to our cause . . ."

Kent spat out his unlighted cigarette onto the floor. He was particularly bitter over the fact that the second wave of the raid had been beaten off. So badly, in fact, that the third wave had not even made an appearance.

An agony of thought gripped him when he considered the possibility of Lillian's fate. And Germain! Kent never knew in his life that the dregs of misery could be so bitter. It was like physical torture. But what could he do?

DR. BORG'S underground hospital looked like a showroom at a surgical convention. White uniformed attendants entered it and left it on silent feet, as quietly efficient as automatons. They were the most experienced nurses the world could provide. Instead of interns, Borg had leading surgeons and biological technicians as his aides. They were the only ones who could have understood enough of his highly advanced work to be of any real assistance.

"All my life," the doctor was saying to Germain, the following night after the raid, while the latter lay strapped to an operating table, "I have been fascinated by the human brain, itself. I have studied it minutely in almost all species of animals as well as in man. I understand its evolution perhaps better than any other living specialist."

Borg paused, while his rubber gloves fondled a sharp, bone-cutting instrument. He snarled happily, and his left eye twitched down to half the size of the other. "I can tell you," he said, "that the human brain has, comparatively speaking, only begun to evolve. Our thinking processes are carried out through the surface convolutions, somewhat in the manner that a static

electric charge clings only to surfaces, but no thinking goes on in the inner, so-called gray matter. It has been said that we use only one tenth of our brains with which to think, but I can label that contention as a gross overstatement. The percentage of the unused gray matter to the actually functioning surface convolutions represents an incalculable increase. Why? Because it is packed solid with unused cells which in future eons will unfold like a sea anemone, developing new blood channels which will feed and activate all areas, permitting new patterns of thought to form, leaving the field wide open for the development for an endless variety of new mental faculties. We are already different from dogs, because we have a sense of color and a sense of aesthetics. Who knows of what other faculties there may be in a mere embryonic stage within the brain?

"But my experiment with you will be on a purely empirical basis rather than on a hypothetical one," he continued congenially. "I intend to speed up the process or rather the results of evolution in your brain in various ways, which I shall explain. It is very interesting."

"Yes, isn't it!" said Germain. "So very charming of you!"

From the looks of things, the operation was about to begin. A huge surgical machine with a battery of microscopes hung ponderously above his head, ready to be lowered over him. He saw electrical cables, small spot-lights, oxygen tubes, gas tubes for anaesthetizing. Grave countenanced attendant doctors were putting on white masks. Germain's beaten mind thought sickeningly of Lillian. He felt, physically, as though his heart had broken. Life seemed to be a festering corpse. Let them do it!—he thought. I hope to God they kill me!

"Superior brains," the doctor prattled on, "are merely the result of a fortunate combination of circumstances. Excellent blood delivery to the brain, a good heart, a fine endocrine system, these are the basic essentials. You have a fine endocrine system, even including the thymus. You also have a beautiful adrenalin output when required, and a high quality pituitary. The only real requisite lacking for the ordinary type of superiority is better blood delivery." He waved his hand at a glass cage beside the table. "See those plastic arteries

CHAPTER V

Infant God

and veins?" he said. "They are going into your head—deep in, to feed and supercharge the inner gray matter. But this is not all. I am going to open up new layers in your brain, open fields for the development of tens of thousands of new convolutions. Theoretically, in a short space of time your mentality could be equivalent, in psychic power if not in knowledge, to that of a man as he might reasonably evolve a million years from our present era."

"Tell me one thing," said Germain quietly, his somewhat battered Indian's face staring at Borg out of black, inscrutable eyes like those of an ancient tribal chieftain caught in the enemy's camp and about to be put to the test of torture. "What if I do turn out to be a superman? Then what?"

"Aha!" gleamed Borg. "Then we are only ready to begin! I shall have controls over you whereby you will be forced to think for me. Much deep and concentrated thinking is going to be required by us, and your brain may turn out to be the very psychic instrument that can do it and arrive at the conclusions which we desire. You are about to become very valuable to the New World State. No, I amend that statement—" Borg's ugly countenance darkened before a vision of fear. He gazed beyond Germain at something conjured up by the mind, something which was unimaginably grim and terrifying, something which an advanced mind such as his could only contemplate with stern foreboding. "You are about to become a door of escape for a few individuals. Your own brain is the only road we'll have!"

He glared at Germain purposefully.

"That road," he said, with a snarl, "must be very carefully constructed, but with haste!"

The huge machine above Germain came down toward his head like the underside of a freight elevator. Expert hands fastened a gas mask to his face. He felt the gas surge into his lungs. There was no smell to it like the old-fashioned ether. His head swam.

Curiously, he began to count the stubby whiskers on Dr. Borg's chin as the attendant prepared his surgeon's mask. One, two, three . . . four . . . five . . . s—

The intervals between numbers had become longer and longer until now . . .

DARKNESS . . .

Soft, sweeping endlessness . . .

Black, infinite nebulae billowing . . .

In the abyss of eons a brittle ringing . . .

stephen germain!

Stephen Germain!

STEPHEN GERMAIN!

That's who *he* was. Ego evolving out of space. The vibration of existence commences. Life's pendulum swings. The living clock ticks. A heart without body, pulsing, pulsing, pulsing, whirling in space, gathering momentum, gaining mass, enhaloed by wobbling planets of blood. thrump! Thrump! THRUMP!

Wind rushing. Velocity beyond comprehension. Faster . . . faster . . . faster! Bursting the confines of Infinity. A blast of light . . . Consciousness . . .

HE LAY in darkness, his bandaged head braced up, still on the operating table. Nearby, a nurse sat dozing.

Germain lay still and analyzed himself. Still alive, he mused. Not much damage. He felt vaguely sluggish, but he reasoned that was to be expected of a convalescent.

Then he heard his pulse beating in his temples. His heart seemed to be working at a normal rate, but with a heavier, more purposeful beat. He heard then faintly the ghastly sound of blood gurgling in plastic veins and arteries—inside his head! He suddenly felt dizzy and nauseated, and he groaned.

In an instant, the nurse was helping him. "Don't move your head," she said. "You must stay like this for some time."

After a while, Germain slept. The next day, Dr. Borg came in to see him.

"You will not notice anything unusual right away," he said, "but soon, I am sure, you will become aware of strange new things which most men have never sensed before."

Germain asked about Kent and Lillian but got no reply. So he only lay there on the operating table and thought and slept.

Once when he awoke he experienced a new sensation. It was like having a pair of eyes for the first time and seeing indescribable things like color. Among his own thoughts he *sensed* the thoughts of others.

Words spoken in Russian were understandable in terms of basic ideas. He did not open his eyes.

"You going to town tonight?" one voice, speaking aloud, said to the other, in Russian. Then the same personality who had spoken *thought*: He better say no. Otherwise it means he can pay me the five-hundred Bolivianos he owes me . . .

The person whom he addressed was thinking: I can't tell him I'm going or he'll know I've got dough. I'll pay the old tightwad next week. I can't disappoint that gorgeous, satin-looking little Latin of mine by showing up without any folding money. "No," this second one said aloud. "I've got some work to do for the sergeant." And again he thought: Nice work if you can get it! Oh boy! I can just see her now! And when I take her home—

There followed, in a few seconds of time, a vivid mental portrayal of a time-worn combination of amorous proceedings, some of them of an intimacy which a man would never share with anyone—thoughts which always remain in the individual's own mental cellar and are never voiced.

Hm-m-m. So it begins, thought Germain. Now I can read people's thoughts. So what!

Suddenly, his eyes opened. A startling thought occurred to him. If he could read enough thoughts around there, he might be able to find out what happened to Lillian and Kent!

Craftily, like a thief who has just made an unexpected haul, he closed his eyes and concentrated on his new found gift. By some practice and effort he discovered that he could submerge his own conscious thoughts until their interference was negligible. When in this state, he received extraneous thoughts with amplified clarity.

After several hours of trying, he found that he could "tune in" on one series of thoughts and shield out others. At first the whole thing was as unwieldy as trying to wiggle one's ears or control other involuntary muscles, but after a while he became more skilled at it. He began to identify personalities outside the laboratory whom he had never seen.

But he was still weak from the operation. He could not do this for long without falling into an exhausted sleep.

Once, when he was awake, Dr. Borg came in and made many tests on him. He at-

tached to his temples and the base of his brain a brain-wave pattern indicating apparatus.² For long minutes he watched the visible wave patterns flow across the viewing screen, studying them carefully, as well as their reaction to various stimuli. During these tests, Germain learned how to bring his conscious thought practically to rest. He did not know, however, that this gave his wave-pattern the characteristics of a sleeping man under anaesthetic and that Dr. Borg easily detected the subterfuge in view of the fact that the patient lay awake looking at him. The old wizard realized at once that Germain's brain was growing rapidly in dexterity.

One time Germain read Borg's thought: I think I'll jab my knife through his left arm and watch the wave pattern . . .

When Germain turned his eyes apprehensively to look for the knife, Borg laughed, "So you *do* read minds! I knew, of course, that you were attempting to conceal your growing abilities." All the while he was watching new, powerful and complex wave patterns leap on the visual screen. Such waves he had never seen before occurring in the brain of any mortal man. "Magnificent! What a brain!" he exclaimed. "Now I see your true growth. It is remarkable!"

He snarled happily, baring purplish gums. He waved a bony finger at Germain. "Just don't get too clever with that brain of yours, Mr. Stephen Germain! There are a *great* many things in this wide, black world that you don't know about, but I *do*!"

GERMAIN'S mind reached up to delve into the doctor's mind, to see what it was that made him so mysterious. For one brief moment he seemed to grasp a mass of monstrous mental impressions too incomprehensible and terrible to fathom in one instant. They were like grotesque phantoms caught at a ghoulish picnic by a lightning bolt. They scattered before his probing mind in an infinitesimal part of a second, scurrying, it seemed, underground, and he chased them deliberately through

² Such apparatus is used today in various hospitals to determine epileptic cases and to identify other types characterized by visible brain-wave patterns. One experiment showed visibly on a screen the subject's mental wave pattern in response to the smell of violets!—Author.

what appeared to be catacombs, but they closed ponderous doors against him. He felt he could have burst these mental barriers asunder, but he *knew* somehow that if he did Dr. Borg would know also of his true powers, because those mental doors were deliberate barriers placed there consciously by the doctor, and Germain did not feel it prudent to let the other become aware of his soaring mental strength. However, he gathered two vague but ponderous impressions: what Borg feared was a source of terror to Nicholas the First, and the object of their mutual fear constituted a colossal threat to Humanity.

Borg now deliberately thought at him: I am something of a mentalist, myself. At least I can screen my thoughts from your exploring psycho-electric perception. Don't be too confident, young man. Remember that I can always control you. Your mind is just a toddler in a big new world never known to you before. I warn you. Unknown dangers and, yes, unknown and fiendish beings are there in that mental world to do you mortal harm if you do not do as I order you to. Now I want you to relax, to rest. Close your eyes and close your mind. Relax every muscle of your body. You are drifting in peaceful darkness. You are descending into a deep well of peace and silence, where you are to sleep and rest and heal. You can do nothing else than to obey my thought, for it is your only protection, your only attachment to existence. My mental voice, Stephen Germain. To this and this alone will you respond . . .

Only half-hypnotized, Germain's formidable mind allowed him to fall into an exhausted sleep.

THIS TIME, when he woke up, he found himself in a new location. He was lying on a hospital bed, his head braced immovably in a special kind of stand. He was in a small, electrically lighted cell. There was one door, which was heavy and locked.

So they are afraid of me, he thought. He closed his eyes and tried to contact somebody's mind. He had never quite gotten around to testing his range.

Suddenly, he had a new experience. This time he seemed to follow a stream of thought to its source. He suddenly felt as though he were *inside someone else!* He gasped aloud. The impression faded, mo-

mentarily, and then returned, clearer than before. *He was seeing!* Seeing through someone else's eyes! He saw a corridor. Several Russian soldiers walked by the person whose eyes he was using.

My lord!—he thought. If I can do this I can find Kent! I can find Lillian—even see her! Maybe—maybe I could even *fight back!* This is it! They've given me a weapon and they don't know it! My body can lie here and I can be outside, actually. But first I must learn to control another person's will. I know it can be done now. Just got to keep plugging. God help me . . . !

CHAPTER VI

Rescue

ONE WEEK later, an American patrol plane droned through the stratosphere near Guayaramerin. Big, telescopic night glasses were trained on the northernmost Russian outpost in the Bolivian *Beni*.

"It's a damn shame," the pilot was saying through the telephone to the observer, "that the big Santa Cruz raid failed. Helluva lot of fine commandos lost there, not to mention ships and equipment. Damn, can't we do anything to whip these dirty swine?"

"Wonder what happened to the guys that got caught," commented the observer.

Shall I tell you?

"Yeah, but how do you know?" asked the observer.

"What are you talking about?" said the pilot.

"You just said you'd tell me."

"Tell you what?"

About what happened to those who were taken prisoner.

This time, both men were aware of the thoughts of a third person. The pilot looked suspiciously at his co-pilot.

"Did you say that?" he asked.

The co-pilot had been looking dreamily away at the vast, round edge of the world and the dim stars which shone in the stratosphere even in the daytime. He awoke with a start.

"Huh? Who said what?"

"No, I guess it wasn't you. Hey, Sam!" he called to the navigator. "Were you talking on the phone just then?"

"Naw, I was shootin' a couple of stars

I know. Just got Betelgeezzer in the belly!"

"Hank!" called the frantic pilot to the communications officer. "Were you talking on the phone?"

"Quiet!" came the other's voice. "I'm receiving a time check."

The pilot and his observer, though they could not see each other, felt the common bond of mystification draw them invisibly together.

It may seem amazing to you, but you fellows will have to believe what I am going to tell you . . .

"Yipe! Hey! Did you hear that?" shouted the pilot.

"Hear what?" said the co-pilot. "What is this, anyway?"

"Yes, I heard it!" cried the observer. "What in hell do you make out of it? It isn't a voice, it's *thoughts*!"

"Jeez!" exclaimed the pilot. "Maybe it's true they talk to you up here!" His face was covered with cold perspiration.

"Say, you feel all right?" queried the co-pilot. "You look pale as a hermit crab's belly. You cold or something? Look at the goose-pimples on your hands. An' you're sweatin'! I got it! We never shoulda drunk that pre-war stuff we picked up in Iquitos!"

The pilot swallowed hard. His complexion had just the suggestion of a delicate pastel green in it. "I tell you there's a guy talkin' to me!" he insisted. "An' he isn't on board this ship!"

"Aw, you're gettin' batty! Maybe you better—"

The pilot waved his hand for silence. His eyes went wide, staring into space. "Listen!" he hissed.

My name is Stephen Germain. I will not take time to tell you in detail how I accomplish this mental telepathy or how it is that I can see your plane and read your minds. The object of my contacting you is to arrange a rescue. . . .

"Hey!" shouted the co-pilot to the other members of the crew. "Mack has passed out or something! He's in a trance!"

"So is Ernie!" called the navigator, referring to the observer. "He's just staring blank into space! What's goin' on around here?"

SIX HOURS later, at Lima base, an irate general was stomping back and forth in front of two wild-eyed airmen and a room-

ful of variously skeptical and open-mouthed lesser officials of the Sixth Airforce Command and the Strategic Services Division.

"But it cannot be true!" he snorted, while all his medals jangled discordantly. He slapped the bald-spot on his head in desperation. "Yet, the information you have given concerning Captain Germain and Major Kent and the Santa Cruz base could not have been known by you two." He waved his hands in a gesture of despair, appealing to the chief representative of Strategic Services. "What do you make of it?"

The middle-aged colonel from Strategic Services looked like nobody's fool. But besides being a realist he also had imagination. He was a tall, thin man with a black mustache and *pince-nez*, a bald head and a distinguishing scar across his forehead. When he spoke, it was with slow deliberation. The pilot and the observer who had heard voices in the stratosphere looked at him hopefully.

"We have gathered, so far, the following facts," he said. "These two men, according to their companions, were flying in the stratosphere above Guayaramerin when they fell into a species of trance. They remained in that condition for one half hour. During that time, so they say, they were addressed at length, telepathically, by our own operative, Captain Stephen Germain. He told them about the Santa Cruz raid and his part in it. He told them about Major Kent's imprisonment, in addition to a heretofore unknown fact which we have only been able to verify partially, that is, that Nicholas the First is in Santa Cruz. Also, he described to them the plight of his wife, Lieutenant Lillian Germain, who is now in the Dictator's personal custody.

"Furthermore, he outlined to them a very strange plan, whereby Major Kent, Lieutenant Germain and a few others of the imprisoned survivors might escape. He made mention of mental powers which rapidly acquire new proportions each day, due to some experiment of Dr. Borg's to which he was subjected, and he claims that he now feels in a position to put guards to sleep, dominate wills and, in short, completely fix the camp so that a small rescue party might get in unharmed, pick up survivors, and get out safely again."

"Yes, yes, of course!" said the general in

command of the Sixth Airforce. "We know all that, but what do you *think* of it?"

"We cannot believe everything we hear without some sort of proof," answered the colonel, unperturbedly. "Still, we have been given some startling facts already, which could not have been known to these two airmen."

"How do we know it's not some new trick of that mad Russian, Dr. Borg?" asked the general. "We already know about brain-wave emanations. We can measure and amplify them. Maybe he's found a way of putting his thoughts on the air. I don't know. I've read the story of that fellow's life in pre-war days and we also have your own more official data on him and you know as well as I that bio-chemistry is not his only field. He has distinguished himself in about ten major fields of science and is also one of those Svengali mystic types. I wouldn't put anything past him. We can't take any more chances!"

"It is not too difficult," said the colonel, "to arrive at conclusive facts. It is reasonable to assume that if Captain Germain actually communicated with these two airmen he would no doubt be concerned enough about the outcome to follow events in his mind. I therefore suggest that the two men who first received these impressions return to the same location and attempt to make a new contact with Germain. I, myself, will go along. I know some personal data concerning Germain that only he would be able to tell me. I shall ask him concerning these things, either mentally, or through one of these two airmen. If we can thus positively prove that it is Germain who is sending the thought messages, then I suggest—"

The general stared at the colonel. Suddenly, he struck the palm of his hand with his fist. "Congratulations!" he said. "That's good common sense right smack in the middle of a nightmare! We'll do it and see what happens! And if this turns out to be valid, I'll send a large enough ship to pick up any and all survivors. I'll send three volunteers in a strato-transport and cover them with two dozen fighters to hang around upstairs just in case—"

NICHOLAS THE FIRST had decided to prolong his stay in Santa Cruz. It was a good point of vantage from which to direct the Grand Attack that was de-

signed to expel all democratic forces from Latin America. Vast skytrains and huge submarine freighters were bringing supplies daily to Argentina, Uruguay, Paraguay, Bolivia and Chile, out of busy Eurasian factories. Great attack fleets were now almost complete. Secret reports on the Asiatic fleets were also very gratifying to Nicholas. He felt his heel well planted on the neck of the surface world. If the enemy should pull new tricks out of the bag in their last moment of desperation, Nicholas had such an overwhelming reserve trick up his sleeve that he was afraid of it, himself—even sorry that he had tinkered with it. He, the man who took no chances, had ended up by taking the greatest chance of any of Earth's rulers before him. This thing was far worse than the atomic bomb. It was more like the threat of a true chain reaction. It might prove to be a terrible boomerang that could, in the moment of his highest triumph, utterly destroy him.

He and Dr. Borg, two of his highest aides, and one very special personal advisor, were the only ones who were aware of this super blitz weapon that he held in reserve. The special advisor, Svenga, was even at that moment engaged in a secret mission to a certain mysterious country for the purpose of guaranteeing the docility of the weapon, through the medium of diplomatic prostration and impossible promises of reward. The weapon was a treaty backed by some rather wolf-sized teeth—on the side of the "weapon." It was, as Dr. Borg had so aptly pointed out, a pact with the real and living Hell, itself . . .

LILLIAN, said Nicholas, as he sat back in his chair and munched slowly on some giant Concepción peanuts, "this assinine American individual initiative is especially unbecoming in a woman. I think you would be a positively irresistible female if you were less independent."

Lillian Germain sat expressionlessly, except for an impression of coldness, in another chair, hardly hearing what was said. She was dressed in fairly becoming clothes which had been brought in from Buenos Aires, flown to Santa Cruz in compliance with the Dictator's request. She herself, unable to resist her passion for flowers in the midst of the tropics, had almost subconsciously fashioned a casual corsage of angel's trumpet with a sprig of

red Bougainville to her blouse. Nicholas had ordered her a complete makeup and she found herself fit, at least in appearance, to step out onto the streets of any metropolis. But she did not appear to care or even to notice. Her blue-green eyes gazed listlessly into space. Her full red lower lip was pursed out more than usual.

Her mind was on Germain and Kent. She had heard nothing nor any sign of life from either of them since first meeting the Dictator, except for one thing. They did tell her that her husband had survived the operation and that he was alive and well. At least that was something, she thought. Still, if he had been reported dead, she would have had only herself to think of, which she would have considered a negligible matter. But with him still alive somewhere in this nightmarish camp it gave her food for tortured thought. What had they done to him? Imagination under such circumstances is a cruel companion, bringing to the mind the unwanted but most feared visions of horror worse than reality.

Oh Stephen, Stephen!—she thought. If I could only find you and know that you are all right! This she repeated periodically, like an emotional pulse-beat surging out of the soul.

"You do not seem to be interested in my company," said Nicholas, suddenly glaring at her stonily. His eyes glistened with a feline intentness, as though he were studying a mouse and plotting diabolic trickery. "I think your American idea of woman suffrage is sheer, driveling idiocy and I will tell you why. In this world we must be guided by fundamental law. In regard to womankind, fundamental law says that her purpose is for reproduction, for the mothering of her offspring and the maintenance of the home. Fundamental law also says that the male is the master, the stronger, the wiser, the hunter and protector. He does the fighting and the deciding!"

The Dictator was warming up to his megalomania. He leaned forward across the bowl of roasted peanuts and his unfinished correspondence of State, fixing his gaze upon Lillian, who was slowly becoming aware of the other's sharply knitted brow and his intense, penetrating stare. There was a Satanic handsomeness about him when he was this way, which fascinated her in spite of herself.

"For these reasons I abolished the equality of womanhood in Russia and in every nation which has come under my rule. Much of the old Soviet Union was not as fundamental in its doctrine as the Marxists would like historians to paint it—especially in regard to women.

"Get away from those fundamentals I mentioned and what have you? Ha! It is what you have now in America, and it is hideous! Stupid women asserting themselves in politics while other women's committees are wondering what to do about the shameful increase in divorces, the disintegration of the home, the tens of thousands of delinquent minors filling your juvenile courts, the marital incompatibility, madhouses filled to capacity, sex murders, perversion!" (Editor: It will be seen later on that the *deros* are causing all this in America.—Author.) Nicholas was bitterly angry now. "You women have caused all of this! But your men are groveling, vegetable weaklings!" He stood up and came around his desk to where Lillian was sitting. "Do you know the fundamental answer to it all, and the beginning of all happiness? Do you?"

Lillian made a little quick motion with her head which tossed her raven-black hair over her shoulders. It was a gesture of defiance. She looked up at him stubbornly but said nothing, although the man could see by the increased rise and fall of her breast that she was apprehensive of him. Suddenly, he pulled her roughly to her feet.

"It is this!" he said. And he crushed her to him, kissing her brutally on the mouth.

WITH all her strength, she struck the side of his jaw with her fist. The blow struck hard and, because of her wedding ring which they had permitted her to keep, it drew blood from an ugly cut.

Nicholas did not mind the cut. He stood there and laughed in a horrible kind of way, for through the mask of his mirth she saw his temper flaming. Suddenly the laugh was gone as though cut by a knife. Only the temper was left. His lip curled in a sneer and he struck her a blow that sent her reeling to the floor. Her mind swam in black confusion, pierced with pain. Both her nostrils ran red with blood.

He took hold of her hair and yanked her up again. "Woman!" he shouted. "Ha! Nicholas will teach your sex that funda-

mental happiness lies only in your blind obedience to and dependence upon man! In the World State there is no room for incompatibility and degenerate husbands, or for broken homes or child revolt against parents. It is against my laws, and it is against natural law!"

He threw her into her chair and went back to his desk. But he still had more to say. He looked at her just as intently, but the tone of his voice changed. He adopted a tone of sincerity backed by a sort of practical, fatherly sternness. "Now look here," he said, "I expect more out of you than adolescent hysterics. When I first saw you I took you for something unusual, in every way I've always desired a woman to be. I am very much interested in you, Lillian, in a personal way. You are beautiful, but I have seen the pick of beauties from thirty nations. I've had them in any type or variety, like grapes on a vine. So don't imagine for one minute that this is a case of fascination solely for your physical charms. Fortunately for you I am perhaps a bit blasé in that respect. But there is a real, vibrant life and intellect to you which is stimulating to me. I should like to have you as my constant companion."

"I have played rough with you because I had to, but above all you will find me to be a very reasonable man. Your husband criticized me, in his writings, because he, himself, is blind to the facts. So do not discredit me on the basis of my philosophies!"

A telephone rang and an orderly dashed into the room with a message. Lillian looked battered and weary, so Nicholas desisted and returned to his affairs of state for the moment.

She lay crumpled in her chair, face buried in her arms. With one hand she held a handkerchief to her bleeding nose. Oh Stephen, Stephen!—was all she could think, spasmodically.

Lillian, I hear you, darling. Do not betray me. Pretend not to notice anything.

The thought came unmistakably into her head from an outside source, as clear and as powerful as a great, deep-throated bell. Nicholas heard her catch her breath, but he thought, with satisfaction, that she was sobbing. "Women!" he muttered, in proud disdain, and he continued reading official documents.

Oh Lord!—she thought, shaking with an-

uncontrollable excitement. Do not torture me with such dreams!

But do not be tortured, Lillian, came the powerful, overwhelming thought again. If you will remain calm and quiet I shall prove to you it is I who am sending you my thoughts, and no one else. Remember our secret album in the little brown trunk in your mother's attic in Westwood? It is our honeymoon album that nobody has seen but you and me. The best picture of all is the one we had taken by that old one-legged fisherman on the pier at Catalina. You were laughing in that picture and handing me a coke bottle, and I was holding a hot-dog in each hand. Remember our wedding night? When I held your priceless body in my arms there in the little honeymoon cabin at Avalon and told you of a great dream I had, of how I wanted to enter into world politics and fight all my life for Man's enlightenment, to help set the world back on its feet again? Remember that hill overlooking Culver City that we called our penthouse and all those nights we spent parked in my old Studebaker, and the time when I—

Oh Stephen! My darling!—she thought back, blindly, unquestioningly, in spite of the incomprehensible miracle it seemed he was performing. She bit her handkerchief into shreds and sobbed audibly. They killed you!—she thought.

Poor darling! I can't tell you to be calm, but I can tell you that I am not dead. I am very well, in fact much better than you think. Borg may not know it, but he has given me a powerful weapon of defense. I dare not reveal my real strength until I am ready, because it is still in his power to kill me. So do not let on to anyone that I am communicating with you. I have had you under observation for days, but now things are coming to a head where I have to let you know certain plans. But I have to work carefully. Borg is very clever. He has many powers of his own. And I have sensed many other things too vast and terrible for your comprehension. The main thing is to get you and Kent out of here. Now you just lie still and listen to my plan.

But, Steve, sweetheart—she thought back—please tell me what Borg did to you. Where are you? How are you, really? She even thought, involuntarily: *What are you?*

I must confess, came Germain's power-

ful communication, that Borg has changed me. He has completely altered my brain. He has cut my skull and installed expansion plates for brain growth. My brain has been opened like an artichoke and stuffed with synthetic arteries, veins and capillaries. He feeds me high vitamin content foods, shoots me with energy serum, transplants specialized cells into my body which drive me half crazy with super energy. My brain is already using those expansion plates, and I feel—

"Oh, Stephen!" she cried aloud, uncontrollably.

For God's sake, Lillian!

NICHOLAS looked up with a start from his papers. His eyes glared at the woman, suspiciously.

"I—I had a nightmare," she explained, lamely. She searched the Dictator's face but found it to be as unreadable as usual. She could not know what was going on in that dark mind.

Nicholas' mind is a controlled one, came Germain again, telepathing to his wife. Just like Dr. Borg's, except not quite so strong. I can only read surface thoughts, unless I force myself through. But if I do that he will be aware of my power. Sometimes I wonder, though, just what they could do about it if I let loose and put them all to sleep. Dr. Borg has half-hypnotized me into believing that if I try my mental wings he can clip them off. Somehow I don't think he's kidding me. I have sensed something unmistakably powerful, like an alien intelligence, so powerful and menacing that Borg and Nicholas, themselves, are afraid of it. Terrible shadows hang over this poor old world of ours, darling. When I open up with my heavy artillery I know I am going to be in for some surprises. So all I can do is wait and plan and nurse my increasing strength. Do you know that I can see, through another man's eyes, anything I want for a radius of hundreds of miles; that I can even possess that person's body and mind and will? I can also see, in an indescribable way, without the use of another person's eyes. No only can I see but I can feel beyond myself. I can feel the pain in your head, darling, caused by that blow Nicholas gave you. And I can short-circuit an average mind by concentrated mental energy. I killed three chickens and a pig yesterday. Just seemed to blow out a fuse

in their little brains. I think today I could slay Nicholas, but I—

Lillian was gazing wide-eyed into space, terrified.

Lillian! You fear me! No, don't, darling! Don't fear me, please! I can assure you that the highest thoughts accompany my increase in power.

The powerful blast of Germain's thoughts shut off, momentarily. Ah, what a fool I am! he came again. How unwise I was to reveal to you the real truth about myself. I forgot that love is based on mutual interest and understanding. Now this incomprehensible thing I have revealed estranges you to me. It strikes at all the old racial memories and instincts of the female, at your inborn fear of the unknown, at the dark powers of the Serpent. I feel your mind shrink from its contact with me as you might draw in your skirts at the sight of a sewer rat.

While you are still receptive to me, however, I must outline to you the plan of action I have worked out whereby you may escape . . .

IN LIKE MANNER, Germain sought out Kent's startled mind and revealed his plan. He told him of his contact with the American flyers. He cautioned him to secrecy, mentioning again his deep presentiment of unimaginable dangers lurking somewhere deep within the incomprehensible darkness of this new mental world into which he was slowly groping his way. He said they were dangers of which Borg and Nicholas were secretly aware, dark powers with which Nicholas had made a treaty. He told him that he, Kent, would have to escape with Lillian and some of the other survivors, because the fight against the Russians and the Asiatics was only a secondary matter compared with the real hidden menace which hovered over Nicholas the First and the world like a vast, light-obliterating vampire, and that he would need Kent's help later in the United States.

I feel, he thought to Kent, when I probe Borg's mind—as far as I dare—that I sense the evil power of Hell behind him. It may sound incredible to you, Slim, but my mind is awake to concepts to which all of the rest of you are pitifully and hopelessly blind. We are like ten sheep sleeping miraculously in the midst of ten thousand wolves, and I sense that we are about to

be devoured.

I—I don't get you, Steve—Kent thought back from his prison.

You don't have to—yet, thought Germain. The main thing is this escape of yours.

But what about you?

I must remain. I don't want to be seen by you or Lillian again.

What do you mean?

My brain is growing, Slim. I am a monstrosity. It means the end for Lillian and myself. You've got to take over, Kent, and God bless you! I know you've always loved her.

But, Steve! What will happen to you?—Kent's mind struggled in a maelstrom of doubts and emotions, momentary vistas of undreamed of happiness blotted out, spasmodically, by stubborn loyalty.

When the rescue is pulled, I'll have to show my mental muscles, thought Germain. When I do, there'll be a war on between me and Borg—and something unknown that I think he's going to call into the fight—something which you normal humans might call—supernatural.

I can't understand this, Steve—protested Kent. In his lonely cell he shook his head and wiped his perspiring brow with his one good hand.

Just be ready when I call you, answered Germain . . .

THAT NIGHT many strange things transpired at Santa Cruz. First, an American strato-transport began to circle gingerly above the base, in the stratosphere. The volunteer pilot was the same one who had first contacted Germain over Guayaramerin and who had subsequently communicated with him again. This night the same method of communication was employed.

Hey, Germain!—thought the pilot.

I am with you, resounded Germain's ponderous thought, miles above Zone 7. You may descend at once and carry out the plan as discussed. Do not contact me further, as I must concentrate on other things vital to your safety.

As the plane descended, the Radar watch at Zone 6 in Cochabamba picked it up. They questioned Zone 7 about it. Mechanically, Zone 7 watch replied, "Ship identified and passed. Special mission attached to staff of Nicholas the First."

The blacked out transport landed without incident at the Santa Cruz airport. On the field, waiting for it, was a silent, wondering little huddle of American survivors of the commando raid.

The co-pilot and the navigator waited on board while they watched their pilot, somewhat nervously, as his dark figure sprinted across the field toward the approaching group of people.

"Major Kent?" asked the pilot, gun in hand, as he arrived in front of the group. "Lieutenant Germain?"

"I am Major Kent," said a man in a battle-torn uniform. He had one shriveled looking arm in a sling. "This is Lieutenant Germain." He indicated a pale-faced, silent young woman who was rather neatly dressed in civies for such an occasion. Behind her crowded two frightened nurses and five commandos. These latter were carrying the documents and serum samples they had originally come for.

"We have room for fifty people," said the pilot.

"We are the sole survivors," said Kent. "The Russians are all asleep. It is an amazing thing, what Germain is doing. The strain must be killing him. Let's get out as quickly as possible."

"Then Germain, I guess, is not—"

"No—" from Kent. "He is not coming with us."

The woman with him bent her head and emitted a piteous cry of anguish.

The little group then ran to the plane and got in. Without further incident; it took off and climbed toward the stratosphere. When it had reached the desired altitude and joined its well-armed escort of fighters, Lillian Germain heard once more from her husband.

You are momentarily free, he thought to her, this time not so powerfully. She could sense a terrible exhaustion in him. Go and find your happiness with Slim Kent. Do not grieve for me, my darling. I have a grave struggle ahead, but I must survive it, because after that one victory I shall have to dedicate all my powers to save this world from Armageddon itself . . .

That was all. Kent's arm remained around Lillian's bowed figure as they flew through the stratosphere. Their senses were too dulled by the overwhelming proportions of recent events to appreciate the glory of the almost naked stars . . .

CHAPTER VII

Bound or Unbound?

THE MINUTE Germain released his mental grip on the Santa Cruz camp it came to life. Exhausted though he was by the ordeal, he lay alert in his locked cell and held teleperceptive guard on himself. His extra-sensory vision took in his surroundings in a circle whose diameter was roughly three hundred yards. He gave a thorough going over to each person's mind entering that area.

The first thing that happened was something that had been inspired secretly by Pavlovich. Pavlovich had been somewhat taken back, after the operation on Germain, to learn that he was still so much alive, and that he had acquired such intrinsic value in the eyes of the Dictator. He had aired his suspicions of Germain, but had been cut rather short by Nicholas. Now, however, he saw his chance.

"That's that brain of Borg's that did it!" he told one of the most frightened looking guards. "Somebody's got to kill it, quick!"

Pavlovich, wary enough because of what he had just seen demonstrated and what he had overheard previously from Borg, stayed well out of Germain's sphere of vigilance. The guard to whom he had spoken, however, responded in the calculated manner. Before anyone could stop him, he ran as though berserk toward that end of the subterranean hospital which housed Germain. He carried a supersonic projector.

Germain was weak, but still effective. Before the guard could open up the death ray on his cell, the fellow's brain went dead, all its nerve dendrites singed short by an overload of psycho-electric force. He dropped lifeless to the floor. Pavlovich retired from the gathering crowd outside. He knew that if he were going to destroy Germain it would have to be by a better method. But he would find that method.

Then came Dr. Borg and Nicholas, and Golovinsky. Borg told the others to stay at the hospital entrance, to calm down, and that he, himself, would take care of the situation. Nicholas wanted to follow, but Borg motioned him back.

"This is dangerous," he said. "See that dead guard? Keep back! I'll handle this myself!"

Nicholas called after him. "Either you demonstrate you can handle him," he demanded from the door, "or I'll have him blasted out if we have to do it by long range artillery. He is too dangerous even for *you* to be playing with, Borg!"

"Stephen Germain is about to become a useful instrument of the New World State," announced Borg grimly, as he looked at his watch and continued his limping advance down the hall. "You forget that his powers are of my creation!"

Germain could have killed him, but he was startled to read in Borg's mind that the latter knew he would not be killed, for the simple reason that there were things in the doctor's mind which his patient would want to know. So Germain probed him, frantically, only to come up against those heavy mental doors again. He strained, sending a psychic battering ram at those barriers. And he broke through.

He found a second barrier wall in the form of a prepared thought for his analysis. It concerned a sleeping gas which Borg was about to admit to his chamber, so he suddenly took possession of the doctor and held him as still as a statue. But Borg's was a difficult mind to keep down.

You think you are very clever—Borg thought at him—but you failed to extract from me the full details of the sleeping gas. Of course that is because you were afraid, before, to break through my shield and reveal your true powers. But now it is too late. That sleep gas is set to go off automatically. I had it fixed so that if its moving control was not set back by hand every hour it would automatically be discharged and put you to sleep. So we would have been released eventually, from your control whether you wanted to release us or not. The sleep gas should be on right now. When you fall asleep I shall make a slave of your subconscious mind so that it may solve great problems for me, problems which are vital to myself, personally—and *not* to the New World State!

Germain already heard the gas hissing into his room. He was drowsy in spite of his gigantic will. In a last moment of desperation, he struck out at Borg.

Those watching the doctor from the doorway saw him grasp his temples in pain, saw the heavy death's head cane drop to the polished floor. He staggered.

Borg fought Germain's weakened blast

but felt fire in his brain nevertheless. Then the pain subsided, gradually, and he knew that the white sleep fog was sweeping Germain irresistibly into peaceful sleep.

Immediately, he entered the chamber where Germain was lying, shutting off the gas as he did so. Then he spent one half hour with him, subjecting him to the most thorough-going hypnosis of which he was capable—and Borg was one of the world's most adept.

After he was sure that he was absolutely under control, he set a problem before his subconscious mind. . . .

DAYS LATER, Dr. Borg wrote down the following in his medical diary:

The subconscious mind is merely a perfect robot mechanism. It is like a super-calculating machine. Once a certain problem has been fed into it, it builds up the possibilities with a precise logic, working constantly in spite of the condition of the conscious mind. Its only limitation is human knowledge. Still, the conscious mind of Man is not persistent enough to make every possible combination of known facts. Latent in the warehouse of Human Knowledge are answers to unnumbered great problems yet unsolved. I have caused Germain to absorb out of my own mind all that I know on the subjects of mathematics, astronomy, electro-physics and all related fields of knowledge which I believe necessary to his solving the problem of inter-planetary navigation. His conscious mind will never know these things, but his subconscious mind will use them. Sooner or later, if the solution lies within range of the known facts, Germain's tremendous mentality must produce the answer.

What Borg did not consider proper material for his medical log was the further thought: Then, in the last analysis, in case of mortal danger, I might escape from them. . . . As he thought this he looked about him in the empty room, guiltily, as though even his thoughts might be overheard.

Nicholas, he continued musing, was a naïve fool to have Svenga prepare an official treaty for the foes of Agarthi. What if they do help us in case an American surprise weapon shows up? How can we ever be sure now that they won't turn on us

anyway? Still, Svenga's uncouth "friends" will be my only recourse if Germain starts to get out of hand. The greatest mentality conceivable, if unaided by the unimaginably advanced weapons of the Elder Gods, could not outfight that spawn of Hell!

Then he wrote further in his log:

As long as I can use Germain I shall keep him alive and healthy. His development represents the greatest surgical triumph of modern times. The entire experiment has succeeded beyond expectations. But Germain, I know, is a high idealist. This idealism may have progressed in equal proportion with his mental faculties. If so, his psychic power makes a dangerous combination which I must watch over very closely.

He thought another moment, while his left eye twitched nervously. Then he added:

Prometheus was chained to a mountain because he gave Man the secret of fire. This time, however, the second Prometheus has been chained before he could get into any serious trouble. He will bring to Mankind only that which is convenient to the New World State . . .

Borg looked at a calendar in front of him. He also looked at his watch. Then he wrote:

2400. Eve of Victory. Tomorrow is A-day, and our Grand Attack begins . . .

AND SO it did. The Russians plowed northward on two widely separated fronts. One front swept downward out of Puno and Cuzco, from the Lake Titicaca region. Here twelve armored divisions thundered down like an avalanche upon the American and Peruvian positions. The attack had been preceded by three hours of rocket barrages which cleaned a path through steel fortifications and Incan ruins alike. Already the western air armada, consisting of five thousand strato-bombers, was plastering all strategic points in western South America which lay north of their own lines. The food and equipment factories of Arequipa, the arsenals, airfields and communications centers at Lima, Limatambo and Las Palmas, the docks at Callao, the navy hydroplane base at Ancon,

even the great and lofty workings of the Cerro de Pasco mines were plastered. The hydro-electric plants and steel mills of Chimbote and the Santa Valley and the copper flotation plants at Samne, and the mines at Quiruvilca, all were reduced to useless rubble. The oilfields at Talara and Negritos were blasted out of the ground, even the paper and sugar mills at Paramonga.

In Ecuador, half of Guayaquil became river bottom. The mountain fortress of Quito was left in smoking ruins, like a dying volcano, as was proud Bogotá, capital of Colombia, while Cali and Medellín and the whole great Cauca Valley was razed to ruin.

On the east coast the picture was the same. Porto Alegre, Curitiba, the great industrial city of São Paulo, scenic and strategic Rio de Janeiro, Recife, Belem do Pará, as well as Cayenne, Parimaribo, and Georgetown—all were cast under the shadow of a second strato-bomber fleet of five thousand ships. Out of Uruguay into Brazil rolled fifteen armored divisions across a smoldering highway prepared by rocket bombardment.

But this was not all by far. In the skies of Panama, Costa Rica, Nicaragua, Salvador, Guatemala, British Honduras and Mexico appeared the astounding Asiatic fleet—fully twenty thousand strong. Long-range super bombers from vast hidden factories in Burma, China, Mongolia and Siberia. While their ally in the south ground northward, the Asiatics plowed methodically through Central American skies all day—and all the next night, bombing without respite. When they began to force their landings the next day, three hundred thousand parachutes whitened the skies; tanks, rocket-launching equipment, super-sonic apparatus and provisions followed.

On all fronts the Americans, Canadians, British, Australians and all their Latin American allies fought back with all they had. Hand to hand, bayonet to bayonet, machine bullet for machine bullet, rocket for rocket, ray for ray, flame for flame, tank for tank, bomb for bomb—and man for man. But mathematics favored the Russo-Asiatic hordes. Numbers. Superiority in numbers and equipment, the result of a generation of inhumanly cold planning on the part of half an enemy world.

In Chicago, seat of the U.S. Government,

the president and his cabinet members lost weight and confidence. Grave men of state with years of experience behind them could see the inevitable writing on the wall. To hold South America would be to weaken their main line reserves so much that they would be inadequate for a last ditch stand on the home front. The armed forces of the Democratic Nations would have to retreat, as best they could, before they were completely routed.

On the home front the shadow of defeat stretched out its hand and the people of the nation began to lose faith in a tradition—the old, old tradition of “It can’t happen here!” After working hours they walked in the streets and stared at each other. The old mirage of “Better days inevitably around the corner” had faded in a gathering cyclone. The end of individual liberty was close, and there was apparently nothing that could be done.

“Use the *bomb*!” cried the papers.

“Suicide is better than slavery!” cried other headlines.

The whole world knew that every fighting nation had atomic bombs. Fear of gruesome retaliation kept the *bomb* in many an arsenal cellar. Chicago stated with an air of official hopelessness that the *bomb* was out of the question. It was too late.

“Too late with too little! Too late with too little!” cried mobsters, marching on the capital. The mobsters should have been working in defense plants. The militia called out to fend them off should have been fighting the enemy.

America, light of freedom, was crumbling. . . . The churches filled with men and women who pounded their breasts and cried out to God for liberation. For who else could help them now?

FAR AWAY below the belly of the world, in a dark cell beneath a Bolivian jungle, that one other entity lay sleeping. For weeks a supervitalized heart had pumped rich new blood into a thousand new regions of his brain. For weeks new endocrine substances had been building up the cell structure, thus bringing about an ever more powerful generation of psycho-electric forces. So powerful had this mind become, so intricate and versatile was it, that it could not lie dormant under any condition. Even from the smothering blanket of hypnotic sleep, a segment of con-

sciousness had to emerge. And this deliberately fought to release the remainder.

I am a shapeless thing, an ego drifting down the abyss of reasonlessness. Where is my destination? What is the fundamental purpose which gives me being? What is the tenuous barrier between me and nothingness? Why do I exist? Whither must I go? Let me be form and shape, let me dimensionalize. Location, length, breadth, depth, duration! Somewhere in space and time I have a physical anchorage. Where is my body?

Dim perception of the skull's brittle envelope. Blood gurgling in synthetic arteries. In the depths of being, a heart thrumping mightily, like a pendulum beating the measure of existence.

I am lonely. I am a monstrosity buried in a tomb. No! I am a mortal man and I love a woman! Lillian! Lillian, my darling!

Sphere of inner perception racing outward, seeing without vision, seeing by knowing, incomprehensible awareness—expanding through space itself, to northern latitudes. *Lillian! Lillian, my lost wife!*

LILLIAN GERMAIN could not open her eyes. She lay in bed in her darkened bedchamber, motionless, relaxed. Her mind was elsewhere. Some monstrous thing, unseeable, unknowable, had found her finite mind and plucked it from its shell like some rare pearl, to dance into endlessness.

Lillian, I am lonely! I am as one buried alive without you. I need you for my own existence. Come with me across the endlessness of thought to a thousand worlds which I shall make for you out of the nothingness, just as real as the old one we have known, for it, too, evolved from the nothingness. Share with me knowledge of life and death. Do not fight me with fear, my dearest one. Come to me, bride of my thought. I cannot support in solitude the magnitude of a mind which encompasses the world. I must have you with me. I shall die without you!

I am a mere woman—she replied, as though defending herself in a dream. You betray yourself to think that one such as I could be companion to a god. Leave me to my mortal ways, Stephen, my lost love and beloved husband, if you have ever loved

me. But because I shall always love the memory of you as you were I must tell you this. Match your mind with a problem which will challenge it. Do you not see your road, dearest one? It is the world, the once bright world you talked so much about. You were no nationalist, you were a dreamer of universal security and enduring happiness for all Mankind. Now you hover like an ancient god above the Earth and yet you occupy yourself with one insignificant mortal being rather than seek to save us all from slavery. Put that mighty shoulder to the wheel, O my Prometheus, and if you ever once loved this simple mortal, if you ever carried the torch of altruism, *fight!*—as only you may discover that you can. . . .

Lillian awoke with a start, eyes wide with a terror of the great Unknown. Something had suddenly released her from a nightmare which seemed unfathomable. She trembled uncontrollably, reaching for her robe and turning on the light beside her bed. She had an inexplicable sense of immensity surrounding her, which made her so infinitesimally small that she felt lost.

But that dreaded feeling about the war and defeat was gone. The lost tradition of confidence was being replaced by a new faith in something which she could not even describe. However, she knew that it was nothing fictitious. It was real. . . .

CHAPTER VIII

Foes of Agarthi

NICHOLAS the First had been served the sweetest fruits of victory. In four months, South America was his. His forces and those of his Asiatic allies were in good enough condition to stage the final attack on the United States within two months. Congratulations heaped upon him from New Moscow and urgent appeals were sent for his return to the capital of the New World State.

But Nicholas was gravely worried. He sent for Borg.

"You've fooled around enough with that freak brain of Stephen Germain's," he said, peremptorily. "Now I want you to destroy it!"

Borg snarled and scowled at the same time. "Why do you want to kill the goose

that is laying the golden egg?" he said.

Nicholas' eyes were not so piercing any more. They were bloodshot with sleeplessness and he only glared dully back at the doctor as he answered, "Germain is taking too long to figure out what we want, and in the meantime he grows freakishly powerful and menacing. Why his powers are equal to one of those ancient ro machines Svenga describes, which can make anyone do as the operator wishes! He is fully as much a danger to us as the foes of Agarthi. I've made one mistake, but I won't make it twice. You must destroy him!"

"Ah, but Nicholas, if you only knew the progress I have made with his subconscious mind! I swear it will not be long before I shall have from it the secret we both desire. Then we can destroy him."

Nicholas looked up at Borg with one raised eyebrow. "Can you destroy him?"

Borg hesitated for a brief moment. Then he said, "Yes, there is a means within my knowledge of destroying him—when I wish it."

"I wish to God I could share your confidence!" snapped the other, distractedly referring to a deity whom his philosophy excluded.

"But it's true," said Borg. "And furthermore—"

"I suspect," interrupted Nicholas, "that you rather cherish Germain's brain, like Gipetto who made Pinocchio and thought he was a father. Well, I may be moved to have that dangerous toy of yours destroyed unless results are produced immediately!"

"Gravitation," said Borg, "*is the resistance of matter to the passage of negatively charged cosmic particles.*"

"Where did *that* come from? The brain?"

"Yes, from Germain!" said Borg, his queer eyes gleaming. "This points the way! It means that gravitation may be neutralized by some kind of force field which would so align the atoms as *not* to offer resistance, but rather, mutual attraction!"

"And I suppose Germain can solve that?"

"He can! He is already doing it. His brain is a miraculous machine. Under hypnosis he has sat at a drawing board and laid out electrical and radiotronic diagrams based on new mathematics which evolves within his brain. He visualizes complicated wirings with hundreds of times the mental

tenacity of a world champion chess player. Then he sketches from subconscious memory. I'll have soon some interesting completed diagrams necessary for creating the machinery that can generate a neutralizing field. You might call our objective 'degravity plates.' When we have these, all the rest is easy—air, food, heat, light, equipment. Your factories could build a ship in a month."

A flash of hope lighted Nicholas' tired eyes. "If this is really valid," he said, "then I would have an extra ace up my sleeve, even against *them*—the foes of Agarthi! Just think, Borg, if we could really do it! Why, perhaps I could find a new ally on another world and return with some of the ancient weapons myself, to really conquer this worm-eaten world!"

Borg saw in the Dictator's eyes such fires as only a madman's dreams can nourish.

"If you can speak out into space through their guard rays, maybe," said the doctor. "You know that extra-terrestrial beings have tried to land here before and were wiped out, according to Svenga. The deros don't want surface people to advance into higher science.

"But let's not discuss this further. You'd better cut it out of your mind. I know we may be far removed from *them*, but *they* can read our thoughts even here. As a matter of fact I think they must have certain representatives in Andean caverns running through Ecuador, Peru and Chile. They could be as close to us as La Paz!"

"Now I must confess something to you concerning Germain. He is getting out of by own power to keep him controlled, yet I must keep him healthy and supercharged if he is to help us soon enough. We need him, but without help from other sources I, myself, would perhaps be powerless to resist him if he ever once got an opportunity to short out my dendrites—that is, kill me by a blast of psycho-electric energy, of which he has plenty. His seething brain is a powerful battery and a psychic force transmitter."

"But you said you could destroy him!"

"Yes," said Borg, enigmatically. "With certain assistance."

"Meaning?"

"I have a plan. Let us allow *them* to make him obedient!"

"No!" Nicholas' brows raised in astonished protest.

"Yes! It would allay their suspicions for us to let them in on this thing. We'll present the thing as though we considered Germain dangerous to their own well being, although I don't see just how he could harm them. We'll protect Germain, on the other hand, by telling them that he may be able completely to fathom the secrets of the ancient mech by means of his teleperception, and thus be able to repair them for the first time, or at least to guide *them* in the repair work. That would prove interesting to them, I am sure, as they are no longer immortals due to imperfections in their ancient mech. There is too much radio-activity, according to Svenga."

Nicholas thought a long time. Then he smiled grimly. "Yes," he said. "It might work, after all. It would certainly control Germain. Good! I'll contact Svenga immediately. He must by now have returned from his secret mission . . . I'll speak with New Moscow on the lunar beam."³

SEVERAL nights later, Stephen Germain fully regained consciousness. He felt very well. His head was now completely healed. He was no longer strapped down in the wheel-chair to which they had transferred him some time earlier. So he got up gingerly in the darkness of his cell. He flexed his aching muscles. Something was wrong about this freedom they were giving him. Were they crazy?

I think I'll blast them all tonight and steal a plane—he thought to himself.

"*This you will not be permitted to do,*" said an unknown voice.

Startled, Germain turned about and looked in vain through the darkness. He saw nothing. Instantly, his ponderous mind was probing space, *seeing* what was in the very air. And in the same instant he felt his flesh creep.

There in the room beside him, visible only to his mind, was a ghoul. It was only about four feet high. It was dressed like a mediaeval monk, in a brown, hooded habit. But its face was not that of any creature that had looked at the altar of God!

Pale flesh that looked as though it had

been rotting under planks. Bulbous, watery eyes that looked ready to burst. A flabby nose splotched and swollen with purplish veins. A mouth utterly devoid of any human expression. The lower lip was so ponderous that it hung down, revealing lifeless gums and only two remaining upper incisors, like those of a vampire. His most outstanding feature was that he looked far too old to be alive, as though he were being preserved by means of stimulants alone.

At once, something instinctive in Germain rose up and made him hate this monstrosity more than anything he had ever hated before in his life. Without hesitation, and on the crest of a tidal wave of unaccountable rage, he summoned all the psychic forces within him. For one brief moment the ghoul, himself, was startled to see a dim halo of light appear about Germain's great, scarred head. Then the bolt of mental force struck. It was a force which could have killed a dozen men easily, had they been within its radius.

But the little ghoul only stood there and grinned back at him—although with the trace of surprised respect on his evil-wise face.

"You fire stupidly upon my teleprojected image," he leered. "I am not real, you see." His red-rimmed watery eyes glowered at him like a pair of festering carbuncles. "But *this*, you will find, *is* real!"

Germain, plainly and simply, screamed with pain. A bomb exploded in each and every one of his bodily cells. It was a pain so great that it was impossible to sense it and live. So Germain fell to the floor and died—or so it seemed.

"You fool!" came the ghoul's voice in the darkness. "You were not to kill him!"

"But I did not give him enough to kill him," protested the other voice, in a somewhat guilty tone. "He's tricky! He can do things—I mean, things that perhaps even the mech cannot do."

"Meaning what?"

FAR away beneath a mountain, in the actual abode of the ghoul, a thing happened which had never occurred in the entire amazing history of the cavern people. The horrible little fiend stood within the field of a teleprojection machine, arguing with its operator, who sat beside him at a huge console of instruments. Suddenly, their minds were filled with a thought that

³ *Lunar beam.* Powerful high-frequency beams that break the Heavyside layer and reflect off the moon back to Earth. An actual plan for televising programs to Europe by lunar reflection is being worked on at the present time.—Author.

was beamed to them by a thought ray sentinel somewhere nearby.

There is alien thought among us!

The first ghoul, in the teleprojector, thought back—Locate it! Our lives are in danger! This Germain is more dangerous than we were led to believe even by our telepathic analyzers.

"What do you mean?" queried the second ghoul, aloud, from his seat at the teleprojector controls.

"I mean that our intended victim has accomplished what we cannot—*true* projection! If we destroyed his body at this moment, *he* would still live to avenge his death! He does not need his body!"

"You mean—"

"I mean that you and I are about to—"

The terrifying thought that had formed in the ghoul's mind was borne out in that instant to be valid. For both of them died, much to the amazement of the thought beam sentinels.

Never before had they seen or heard of a mentality that could invade their world and kill when and where he pleased!

THAT night, Nicholas the First was visited by a ghoul in teleprojected form, but this time visible to normal eyes. The Dictator only had time to sit up in bed and stare before the image spoke.

"You have betrayed us!" accused the ghoul. "You did not warn us of Germain's true powers, hoping no doubt that he would be moved to direct his attentions to us. A fine stratagem, we admit, but not clever enough! For he cannot attack all of us, and before he goes too far we shall have him where we want him, where he will serve us and assist us even against Agarthi!"

The ghoul's sickening eyes blazed anger. "As for you and your feeble empire, we shall destroy it!"

Then he disappeared.

Nicholas had never seen a ghoul from Svenga's famous caverns, yet the experience failed to stagger his mind. Men like Nicholas do not allow misfortunes to do them harm. They merely cast them off onto somebody else.

To this purpose, Nicholas got up and began to dress. He was thinking of Dr. Borg. That old devil should have told him Germain was capable of fighting even the dero, the ghouls of the caves, the age-long

dreaded foes of Agarthi! If he had withheld this much from him, perhaps he had withheld other information as well—the gathering data on the space ship, for example. For all he knew, it might be complete, and Borg was probably biding his time to trick him out of it. Well, the time had come to show Borg who was the Dictator, once and for all!

As Nicholas left his room, he picked up his golden radium pistol . . . Couldn't kill Germain, he thought. I won't try it, or even think it. But if Borg has those space ship plans ready—

A NEW type of being visited Germain. Germain had revived now. He was back in his chair, mind searching far and wide, thinking astonishing things which he could never have imagined.

The being who visited him was also one of the evil race of the ghouls, but he seemed to be of a slightly higher type. Younger looking, but fully as evil in his cunning—even sharper in his thoughts. One of the leaders of the cavern race, thought Germain. He was an average sized man dressed in mediaeval type clothing, but at his hip hung a very futuristic looking weapon of some sort. His hair was black and long, as was his beard. His flesh was pale like the ghoul's had been, but his eyes were bright black and clear and piercing. He showed all his teeth when he spoke.

"You have a certain power to annoy us," he said, "even to destroy some of us. But we are as numerous as a great national of people, and even you cannot destroy a large enough percentage to make any difference in the long run. Now I am not accustomed to this but—I have come to make a bargain."

"You can destroy my flesh, but I shall pursue you forever!" said Germain, with serene confidence. He was filled with uncontrollable hatred.

"But suppose we—ah—had your dear wife among our pleasant company?"

Germain tensed at that. He was unprepared for it.

Suddenly, within his room he saw projected before him a scene of living Hell such as had not been imagined by Man since the days of Dante. He saw, in miniature, a cavern. It was approximately one half mile long by a quarter of a mile in width. In its center was a lake of hot water

which was kept just at the boiling point by volcanic action. Gaseous yellow vapors rose from its surface along with the steam and were wafted by some means of ventilation along the ceiling and up a shaft.

The lake was just shallow enough for a man to stand up to his neck in it, but nowhere could he find it shallower, for the shores were comprised of cliffs that dropped straight into the water. On top of these cliffs roamed a number of ghouls. They wandered among a number of unhappy victims, naked men and women taken from the surface world, in the *flesh* and not in spirit. These men and women walked as though in a trance, straight toward the edge of the cliff. Unhesitatingly, they jumped into the lake. And there they struggled and screamed. Some there were who turned red—boiled alive. But they did not die. For above them, on bridges especially made for the purpose, ghouls sat at huge machines and performed fiendish miracles. They controlled their victims' minds and made them do anything they wanted them to do. And they filled the lake with energizing, stimulative life rays which would not allow the men and women to die, in order that their agonies might be prolonged.

Abruptly, the scene changed. Germain's horrified and hate-filled eyes saw the interior of a luxurious cavern banquet hall. Here a great Bacchanalian orgy was being carried on. Hundreds of men, mingling with the ghouls as though of one race and mentality, drank flagons of wine and reveled in unspeakable horror. A very beautiful dancing girl, evidently from the surface world, was made to dance suggestively on the long banquet table, naked. The men around her poked at her and tripped her. Some broke glasses in her path, and others made her dance on the broken fragments. She stopped, crying out and pointing to great, bleeding gashes in her feet. One great brute of a man then climbed on the table and, encouraged by the satanic crowd, cruelly embraced her before them all. Then, to Germain's uncontainable horror, he took a sword from one of his companions and proceeded to chase the poor girl along the table. When he caught her, he hacked her to pieces, furiously, passionately, while the onlookers rolled off their seats with laughter or fainted from the excitement of their own perverted passion.

Above this scene, Germain's blasphemed

eyes saw another nude woman lying dead and horribly mutilated, in the arms of a statue of Satan! Then the scene vanished.

"What you have seen is no dream," said Germain's visitor. "What you looked upon is real. It is going on this very minute. These are our little pleasures in life. Whereas you of the surface, and those pusillanimous self-styled 'saints' of Agarthi, spend your lives in what you choose to call constructive pursuits, we happen to be geared to do the opposite. So it is with the nature of the Cosmos. There must always be construction and destruction. For every force exerted there must be an equal and opposite reacting force. The one phase must complement the other. Since existence is balanced between these two extremes it follows that the one extreme is no worse or no better than the other. So ours is the way of all that you abhor. And into this world of pleasures we shall be moved to invite your lovely wife, unless you care to do business with us. Teleportation is simple, you know. Any time we need some new victims we take them. Your poor officials in the Bureau of Missing Persons hide more unsolved cases than they care to have the public know about!"

Germain did not speak, because words failed him, but he thought, and the visitor received the weight of that thought, through the tealug beam that accompanied the teleprojection beams, like an unendurable blast of thunder: *I love my wife, but my hate for you and your stinking kind is much greater. Much as the man in me suffers at the thought of deliberately sending my wife to Hell, I will do it before I'll give one inch to you. But your devils can bear in mind that all who harm her will die. Of that, at least, you can be sure!*

At that moment, Germain's whole mind and body was suddenly invaded by a consuming vibration. He tried to fight it, but he did not know how. He tried to escape from his own body, as he had done before, but he could not. It seemed to be shaking him literally into fragments, this gigantic vibration. A hum like that of a transformer filled him. It seemed as big as the world. His being seemed to explode apart, scattering like dust into endlessness.

Where he had sat, a blinding sphere of bluish flame consumed the very air. And when the flame vanished, so had the chair—and Germain.

"Got him!" said the dero.

"All of him?" came another dero's voice.

"Yes. His mind did not escape. He is no more. . ."

"Then let us take his wife, since there is no danger. Her furlough is over with now. She is at the front again, in Cuba. There are many logical reasons why she should turn up missing—lost in combat and that sort of thing."

"Yes, I'd like to see *her* dance on the banquet table of the Yearly Feast!"

MAJOR SERGEYEV PAVLOVICH had begun to suspect that something in the way of intrigue was brewing secretly between Dr. Borg and the Dictator, that is, something more than usual. In spite of the glad tidings of victory and the promise of more to come, the two seldom were seen or would seldom speak to anyone. Often the light was on in the late hours of the night in the Dictator's room or in the doctor's laboratory quarters where the latter lived. It was a rather persistent scuttlebutt which had almost acquired the proportions of legend, that Nicholas had engaged in some sort of secret treaty which was not turning out so well. But Pavlovich, who now took a full measure of pride from the fact that he worked in such proximity to the Dictator, reasoned that anything which could cause the burning of so much midnight oil was worthy of his own attention, as well.

For this reason he had done some spying for which he could have been shot, and had he been any other person than the officer in command he might have been caught. However, he succeeded at last in discovering and perusing, to his overwhelming amazement, the doctor's diary. What this monumental little volume left unsaid his mind was left in a fit condition to imagine.

Main facts gathered were:

1. Germain was to provide a door of escape—a ship of space.

2. The world was going to be too hot for anybody to stay in once the cave-people started an invasion, which they undoubtedly would, now that Nicholas' success threatened to place the surface world under one government.

3. The plans for the ship were just about complete. Gathered from between the lines was the fact that Borg distrusted Nicholas' allegiance to himself.

Pavlovich's reaction was a complex of anger, admiration, wonderment—and distrust, especially of Germain. Foremost of his reactions was anger in the face of the Dictator's apparent betrayal of the New World State, also that if a secret escape was being prepared he, Pavlovich, had not been included. Secondly, he had never been able to quench the flame of hatred which had been burning inside of him for Germain. Now his fear and distrust of the latter served to fan the flame into homicidal magnitude again. He saw rather plainly that when the time came for Germain's murder, Borg and Nicholas would be afraid to try it.

As he knew nothing of Borg's plan to call in the cave-people to control Germain, he surmised that if he, himself, performed the service, Nicholas might include him within his inner circle of those whom he planned to take with him in his escape. But he also knew that the time would not be propitious for killing Germain until the degravity plate plans were complete. So, surreptitiously, he scheduled visits to Borg's diary and watched for any indication that the work was complete.

And one day he read exactly what he was looking for:

Germain finished his work. The dero can have him now, if they can take him. But we must get out of here at once. I feel that my hypnosis over him is never quite complete. Even the sleep-gas now leaves his brain wave patterns dangerously near the level of consciousness. When the hypnosis wears off, or when he pushes it off, the dero are supposed to start watching him, but by that time at least I, for one, will not be here.

It was on the basis of this little exposition of facts that Pavlovich fabricated a little plot, which was rather bold in that it involved a twofold risk to his own life. First, he would try to kill Germain by catching him when he was asleep. Secondly, he would kill Borg. Thirdly, he would take Borg's diary to Nicholas to prove that Borg was plotting to go away, himself, with the plans for the space ship. On the basis of this twofold accomplishment he would appeal to Nicholas to take him into his plans, as a sort of bodyguard—who would spare the Dictator all personal

risks by taking them first, himself. He harbored no loyalty or love for Nicholas, but he loved power and security and distinction. For these things he was willing to pay any possible price.

So the night came when Pavlovich set out, with a radium pistol, to end the life of Stephen Germain. That it was the same night on which the teleprojected images of the cave ghouls were in the latter's room he could not have known. Or if he had known it might not have altered his plans, because one fault with Pavlovich, among others, was that he stayed fixed in a line of action until the end. Once he started out to get Germain there was nothing but his own death which could deter him.

It was due to this combination of circumstances that Pavlovich arrived at Germain's cell just after the bluish flame had wiped out all trace of him. Pavlovich sensed that Germain was not on the alert, as he came near, because anyone who entered Germain's sphere of vigilance could feel his mind being probed by some indescribable psychic force. This night he experienced nothing, so he assumed that his intended victim was under another spell of Borg's hypnosis, and he decided to act swiftly while the opportunity lasted.

He opened up the door of the cell and made ready to fire at where he knew Germain would be sitting. He was going to fire without turning on the light, but he saw a small fire eating quietly away at a few shattered fragments of furniture. He also smelled materials burning, and he recognized the accompanying odor of ozone.

He dropped his gun hand and turned on the light, to stare in amazement at the damage wrought. He was experienced enough in ordnance to realize that the damage created here had not been caused by deathray, machine pistol or grenade. Someone with a new type of electrical weapon had just wiped out Germain, and an admirably thorough job it was. But who? It could have been either Borg or Nicholas, if they had such a weapon. Or had it actually been the deros whom he had read about in Borg's diary? That was closer to being the answer. They, too, might have considered Germain too dangerous to live. No wonder Nicholas and Borg wanted to *get*! Pavlovich felt the hair on the back of his neck rise up in fear. He had an instinctive urge to run from this

place.

Suddenly, however, he heard a startling sound. It came from Borg's office, which was close around the next corner off the main corridor of the subterranean hospital.

"Don't shoot!" he heard a strained voice say.

Then he heard the *whap!* of a radium bullet's explosion and he immediately surmised that Borg was a dead man. In the next instant he heard the sound of drawers being opened and closed, plus the rustling of papers. So he stepped forward, intent upon making the most of an unexpected opportunity. Especially would it be an opportunity if Nicholas were as yet unaware of Germain's death.

NICHOLAS looked up from the space ship plans to see Pavlovich standing in the doorway of the room. The big fellow smilingly pointed a radium pistol at him. He had seen a blasted and disfigured corpse lying under one of the tables but he ignored it. His beady eyes were trained on those of the Dictator.

Nicholas' hand was on his gun, but it would have been risky for him to raise it at that moment.

"You are looking at your devoted servant," said Pavlovich, taking the initiative. "I have seen nothing." His eyes looked at the space ship plans, then back at Nicholas, who had not yet moved a muscle or made a sound. Pavlovich had to struggle against the dominance of those terrible eyes which seemed to possess the hypnotic powers of a serpent. "I—I have read Borg's diary, because I suspected him of treachery," he said. "I know what's going on and I don't blame you for wanting to pull out of here. But I want you to cut me in on this deal, Nicholas, I mean sir." Pavlovich swallowed hard. Those mad eyes were wearing him down. He never knew how much the Dictator could look like Satan, himself, with his pointed face, his sharp mustachios and spiked Van Dyke. "I came to kill Borg, myself."

"And steal these plans?" Nicholas accused, tonelessly. His hand gripped his pistol tightly, but he still did not lift it off the table.

"No," said Pavlovich. "I came also to kill Germain for you, and to give you the plans, because alone I could not have made much use of them. You or somebody like

Borg, maybe, are the only ones who could have made real use of them—in short enough time."

This latter statement made sense to Nicholas, so he concentrated on the previous one. "We've got to clear out of here," he said. "Germain may wake up any minute."

"You are afraid to kill Germain," said Pavlovich, "but while you let him live you are in double danger. If he dies you have only the dero to worry about. Let me contribute to your plans by killing Germain. After that, I'll take any other risk you want me to. I'll be your special agent and bodyguard. But I'm asking you to cut me in on this escape business."

"Go quickly then," said Nicholas, "and kill him!" He, too, sensed that Germain's mental guard was down, otherwise he would have striven to subdue even the thought of aggression against him.

Pavlovich saluted. He turned quickly and disappeared. Tensely, Nicholas stepped to the door and listened. Soon he heard the door of Germain's cell swing open and simultaneously he heard Pavlovich fire. He heard him fire again and again, an unnecessary number of times, enough to blast his victim into untraceable fragments.

There was one tense moment, after that, of deep silence. Then Pavlovich said, "It's all over with, sir."

Nicholas thought: I could shoot this stupid ox, but he has the plodding mentality of a faithful dog. Maybe he will be useful, after all—for a while, anyway.

He stepped to the doorway of Germain's cell and looked in. The light was on, revealing a very much blasted room with no traces of the corpse left. Even much of the furniture had been blasted into small fragments.

"You shot him up well," he said. In his hand was the roll of plans which Germain had subconsciously prepared. "Come on, Major," he said. "You are in with me, as my special aide and bodyguard. Your lips are sealed on this matter, under penalty of death."

"Yes, sir!" sang Pavlovich, elatedly, as he followed the Dictator out of the hospital. He dreamed already of New Moscow, which he had not seen since its name had been altered. He palated, mentally, the distinction of being so close to the

Dictator of the World, and he liked it. Life sang in his ears. . . .

Nicholas stopped him for a moment. "Did you think that the corpse that you saw in there under the table was Borg's?"

"Why—yes, I—" The question startled Pavlovich out of his dreams.

The Dictator shook his head, manifesting a disappointed scowl on his hatchet sharp face. "Borg fled in haste, taking latest information in his head. That was an assistant of his that I shot. Borg is a very brilliant man, and he will work fast. We must do likewise to beat him at his own game, because I feel he is not up to any good—as far as we are concerned. . . ."

CHAPTER IX

The Prophecy Holds

IN AGARTHI, beneath the youngest mountains of the world; the most advanced scientists on Earth or beneath its surface were bustling with activity. In a certain cavern, which was filled with colossal machines that were almost as ancient as the young mountains, six of their number busied themselves earnestly over a myriad of delicate controls.

Behind them stood a tall, vigorous, youthful looking man who was yet old with centuries of wisdom. He stood patiently and watched them. It was the beginning of a new era for Agarthi. For the prophecy this man made years ago was coming true. The King of the World smiled to himself at the strangeness of truth which surpasses imagination. A common surface man had suddenly risen in an hour of need and appeared to possess powers which might even prove useful to Agarthi. The time had arrived for the fulfillment of the prophecy, for this new Prometheus was soon to join forces with those who represented Man's last hope.

One of the scientists who worked at a hugely powerful thoughtbeam machine (telaug), suddenly bent forward over the controls of another machine at his side and watched a teleprojection machine in front of him.

"I have the contacts," he announced to the others. "Watch!"

The other scientists immediately left their own machines and came to the aid

of their companion. One of their number silently took his place at other control panels beside the teleprojector.

In the screen there formed a vision of Germain in his cell at Santa Cruz. In front of Germain they could see the image of a dero talking to him. They saw also the images of the cavern Hell which were being shown to him.

"They are going to dis-ray him," said one of the scientists.

"Quick, then!" said the King of the World. "Use the teletransporter. It is his only chance!" The King, remembering the prophecy, had confidence that the newly supercharged teletransportation mech's vibrations would be able to reach Germain.

The second scientist who had taken over controls next to the teleprojector now sprang into action. Behind the phalanx of tremendous machines a certain metallic cell began to glow with energy. Across the world went an invisible bridge of beamed vibration, vibrations minus quanta, hungry vibrations, seeking the quanta of energy which would complete them and make them true waves.

After some seeking, the end of this beam focused upon Bolivia, then upon Zone Seven, then upon Santa Cruz, and finally upon Germain.

"Concentration — up seven hundred," said the scientist.

One of his companions swung a dial and watched gages. "Seven hundred increase," responded the latter.

"Energize!" cried the King of the World.

What followed occurred one split second before the dero fired their death-blow at Germain. The matter of Germain's physical being was vibrated so rapidly that its components gained mass. They gained so much mass in the tiniest fraction of a second that the equation of Relativity took effect, where matter turned to energy. Had Germain remained in the state of pure energy for more than the fraction of a second, he would probably have never lived again. For while he was in that state, he was dead, completely annihilated. But the god-like beings who had made the teleportation mech had discovered that life, mind and soul are apparently subject to laws akin to inertia. They do not snap out instantaneously. No matter how violently a person may be destroyed or shattered, life, mind, spirit, all of them, hover for a

moment, with the remains. It was that fraction of a second of life's inertia which had made the teletransporter possible. For before life, mind and spirit departed the teletransporter ceased its vibrating, thus allowing energy which had been matter (now in the state of quanta) to become matter again. While in the state of energy, the transporting waves could throw the quanta back to the generating mechanism. Separate beams, working parallel with the teletransporter, always copied the image of the subject, in three-dimensional form, in a special force field which was used as the receiver. The received quanta were then forced to return into the same relationship as before, and the end result was a transportation, through the ether, of the object, ending with perfect physical materilization. Life, mind and spirit took up where they had left off but a fraction of a second previously. . .

GERMAIN had no way of knowing that in less than a second he had been transported from Santa Cruz to somewhere inside the Himalayas. He shuddered from his recent experience and tried to gather his wits. When he looked around he found himself seated on the polished floor of a glass-enclosed chamber. Some very different looking chaps in white robes were opening up the cage. Their robes were of clearest white, and all of the robes were emblazoned on the back with a great golden sword.

Behind them stood an amazing fellow who was at least a head taller than any of the others. He wore a golden yellow robe, which was held together by a belt that had green emeralds for tassels. He looked as though he could have answered any question a man ever had to ask.

This fellow looked at him with eyes that seemed to be able to see the marrow of his bones. Germain sent his mind out to him but was met with a great white mental wall. He could have blasted it, he knew, but he caught an unmistakable feeling of friendliness—a pure lack of deceit and vanity and selfishness which he had always found before in some measure in the minds of others.

You are among the sincerest friends you ever had, came the King of the World's thoughts, booming quite powerfully into his mind. *We have sent for you because we*

need you as much as you need us.

Where am I? queried Germain, refraining politely from delving into this likeable fellow's mind.

This is Agarthi, replied the other. *You will be duly indoctrinated as soon as possible for there is no time to waste. Our common enemy grows stronger and bolder with each passing day.*

What is it you want me to do? asked Germain.

We do not know, replied the other. *It is in the prophecy that you will do some great deed to help us, to strengthen our arm against the dero. And we await this deed anxiously, for we know that the dero are quickly gathering forces to strike a deadly blow at the surface world. What it is you will do to help us must remain to be seen.*

Germain thought to himself for a moment. Then a smile suddenly lighted his face. *I have been playing around with a crazy idea,* he thought back at the King of the World. *Maybe you fellows are just the ones to help me out.*

The gathered scientists, who were also aware of Germain's telepathic message, looked at their leader in open admiration. "The last link of the prophecy!" they said to him.

The King of the World only smiled and reached out his hand to help Germain to his feet. . . .

MICHAEL KENT felt now that there were no further depths into which despair could sink. He had just received an official message in Miami that Lillian had been lost in action. She was not on the list of those killed. She was reported missing, and she had been missing for more than a week. There could be little doubt that she had been killed, because half her outfit was wiped out in a recent Russo-Asiatic combined bombing raid on Havana.

Kent slumped down in his bed and wished he could sink through it into a bottomless pit. He foresaw America's defeat. His most cherished friends were cancelled out—gone from his life. There was nothing left for which to live.

He turned out his light and lay in darkness, enveloped in a dull stupor that was induced by bitterness and sorrow. He had never bawled since passing his twelfth birthday, but as he fought to swallow a

stinging lump in his throat he wondered if that record was about to be broken.

Slim! Slim Kent! Take hold of yourself, old man!

Kent knew that intruding mentality. He opened his eyes wide in the dark, his heart suddenly leaping into double time.

"Steve!" he gasped aloud. "My God! You're still alive!"

Very much so, thanks to a very fine group of friends I've run into, replied Germain. Kent was puzzled by the faintness of the telepathic reception. These thoughts seemed to be coming from a greater distance than that which lay between Bolivia and Florida.

No, replied Germain, *reading his thoughts, I am no longer in Santa Cruz. To tell you where I am, or where Lillian is, I—*

"Lillian!" exclaimed Kent. "You mean to say—"

We are wasting time, came Germain's thoughts. *Lillian is alive but in grave danger, but so is the world. I'm working to save them both and you may be able to help me.*

"Thank God she's alive Steve!" said Kent. "But how could I possibly help you? You know I'm willing, and I'd give my life in a split-second for you or Lil, but I feel so cockeyed puny and helpless!"

You won't be after you've been indoctrinated.

"What's that?"

You can be of no help to us until you have been indoctrinated. Prepare for a psychic experience, Slim. It will be quite a heavy one, but we've got to start at once. Close your eyes and relax. You are about to become a privileged visitor to the Seven Towers. . . .

KENT had no time to reply. He dropped into a deep slumber and began to have a dream that seemed to be reality, itself.

He felt himself pulled, as though up a black and nebulous hill, out of darkness into dim, bluish light. He stood as though in another world or dimension. It was beyond his full comprehension. In all this world there was nothing except him, and a bluish sky devoid of sun, moon, or stars. He was a lone entity in an endless waste. He stood as though on blue clouds which stretched upward into unseeable distance, without horizon. Compelled to do so by

an extraneous force, he walked forward, not knowing toward what.

Soon, however, there emerged out of nothingness, as though it were a mirage, a gigantic mountain of the blue mist. The mountain seemed man-made, for it was geometrically terraced, or pyramided, in six great steps. Before him, beside the first gigantic step, was a massive looking tower, windowless, uninviting. Its soaring top was on a level with the first step, and up on that first step he saw another tower, which began where the first had left off, and its top, in turn, reached the second step of the mountain. Above these two he counted five more, he thought. They faded upward into mists of distance. . . .

CHAPTER X

The Seven Towers

AS HE looked at them he knew that his purpose in this strange place was to climb these towers, one by one. Although again he knew not why, he walked forward and approached the first massive structure which stood at the base of the mighty mountain.

The First Tower

HE stepped through its portals into vastness. The interior of the tower was like the interior of the mountain; nay—of the very world; or did he see Infinity, itself, stretch out before him? There was something which strangely distorted his vision as he walked into the tower and across its sagging floor. He seemed to grow smaller. The floor seemed to curve downward into a deep bowl of foggy night. It was an exceedingly unpleasant sensation, but he pushed onward, driven by an irresistible force.

Faster he walked, yet smaller he grew and farther the distance seemed. Also, shrouds of fog darkened his mind and he fought against it. He was so tiny now that the walls of the tower were lost to his sight. He walked as though through Eternity into the Subcosmos. After walking, it seemed, forever, he came to what he knew was his immediate destination.

There on the floor at the bottom of the bowl, not ten feet from him, was a strange little man who sat on a red and



"I possess all knowledge!"

yellow carpet, smoking a water pipe. But he was only an inch high. As Kent approached him, with each step he, himself, grew smaller, until when he at last stood next to the man, he was no taller than he.

The man was old. His nose was red, his eyes a faded blue. He wore the costume of a fool, a jester, complete with curled up shoe toes and bells.

"Who are you?" he said to this man.

The other jingled his bells and said, "I am Man."

"So am I a man," retorted Kent, "but—"

"Oho! Oho!" laughed the jester, his bells clanging cheaply and dissonantly. "But you thought you were a god, a superior being whose science and wisdom encompassed all things knowable. There could be nothing new under the sun for you because you could always reduce the Unknown to conform to what *you* could understand. This method of self-blinding you called *science*!"

The fool sprang to his feet, did a clumsy somersault and made a clumsier courtsy. "But only *this* you really are! And *only* because you are so vain in what you consider to be your worldly knowledge! In order to see yourself face to face, as you truly are, you had to grow smaller, to a size which is unimaginably small. Man, for all his vanity, is a cheap, self-deceived, self-blinded fool!"

Kent grew angry. Pride leaped within

him, and he lunged at this irritating Jack-in-the-box. But the "Jack" sprang out of the box and was suddenly nowhere to be seen. Kent then turned around to see a swampland stretching out behind him. He knew it was mental trickery, but he was forced to appreciate its reality to his mortal senses. There on the shore before him sat a huge, stupid-looking frog.

"Har-rump!" croaked the frog. "I am the wisest of all creatures in the universe. The universe, of course, is this swamp. I have lived here for three score years and ten. I know every pebble in it, every clump of rushes, every rotten log, every turtle and fly. There is, therefore, nothing more to know, and since I possess all knowledge I am the greatest of all living creatures. There is no greater perfection."

Just then a very incongruous thing occurred. Kent saw a fleet of four-motored bombers, in miniature, sail right through the frog. They came out of nothingness and went into it. Immediately, he was moved to call the frog's bluff. He smiled proudly.

"What about four-motored bombers and all the modern technology of them, and their electronic controls? What do you know of that, oh frog who thinks he is so great!"

"Har-rump" said the frog, as unperturbed as a mountain. "Since I know all things already I cannot accept the possibility of the existence of things outside the sphere of that knowledge. What you mention is impossible. It cannot be. In fact, it angers me to hear such an idea even expressed. The thought is entirely revolting. You should be ostracized for not accepting present concepts as they are."

The frog and swamp then disappeared and Kent found himself surrounded by a myriad of jesters, jangling their bells and leering at him.

"Impossible! Impossible!" they chanted, in a mad, discordant song. "It cannot be! Why can't it be? Because it wasn't before! So therefore it is impossible! Impossible! Impossible! IMPOSSIBLE!" they roared, until Kent had to hold his ears.

There came a clap of thunder, a blinding flash of lightning, and Kent staggered back. Towering mightily above him was a gaint jester who stared angrily down at him, legs spread apart, arms akimbo. When he spoke, his voice rang hollowly

through the tower, as though it were a voice of death inside a vast tomb.

"Man! Man! When will you ever know that while you sit like a self-satisfied frog in your slough of Ignorance there are things so much vaster than you passing around your head that they shrivel you into the insignificance of dust! Wake up! Open up those eyes which you, yourself, have wilfully shut! Your only chance for gaining stature is an upward climb to greater knowledge. So climb, Man, climb!"

BEFORE Kent appeared a spiral staircase, and he ran to it readily, because he wanted nothing more than to be out of this place. He ran up the stairs, and as he climbed them they grew larger, as did he, until it seemed undignified for him to run. By the time he came to the exit on the roof tower, he walked with the calmness of a neophyte in godliness. He was leaving all of Man's blinding ignorance below in the Pit of Vanity. He had graciously opened his mind to Truth. And he knew somehow that the beginnings of great truths and revelations would be found in the second tower.

He came out through the tower's roof and looked over the parapet at the mist world below. He could see nothing. Somehow he felt elevated spiritually, and he took it as a sign of good that he could no longer see the mists which he had left behind. He crossed a perilously narrow bridge and passed between two massive pillars.

The Second Tower

THIS place was larger than the first. But instead of making him feel smaller it had the opposite effect. As he wandered across its floor he felt it rise convexly, and as he rose with it he seemed to grow still more. The illumination here was not so dim. It was bluish light, but brighter than before, and his vision was sharper, his step more sure. He walked on with increasing exhilaration and confidence.

At the top of the vast, convex mound which was the floor, he saw another man, a man who merely stood quietly waiting for his approach, as though he had nothing better in the world to do. But this man was no ridiculous, vanishing Jack-in-the-box with fool's bells round his neck. He was large, larger than Kent, yet as Kent

stepped up close to him Kent grew sufficiently to match the other's stature. This was the same type of optical illusion as before, but in reverse.

The man was vigorous-looking, strong, healthy, cool and calm. He had the perfect, powerful symmetry of a god. His head was quite large, as were his age-wise eyes. For although he appeared to enjoy an undying youth, one could measure his centuries of life by the aura of wisdom which he wore.

His clothing was distinctly of the future. An emblazoned star of precious stones rested on the massive square of his chest, underneath a crystal-clear plastic blouse which was so pliable that it rippled like water with his slightest motion. He wore metallic woven trunks and a simple belt of gold. On his feet were sandals laced to the knees. His short-cropped hair was blond.

"Who are you?" said Kent.

"I am Man," replied the other. He raised his hand as Kent began to form a further question, for he read the thought in his mind. "I am Man after his awakening from Ignorance, Superstition, Fear and Vanity. I am Man advanced one hundred thousand years by the forces of Wisdom. Let me show you how I came to be. It all follows laws of natural development and, since you are no longer blinded by the Ignorance which is Vanity, and since your mind is open to the possibility of the truth, you will not deny that it can be so. Behold!"

Kent looked where the man's finger pointed, and he saw woven in the bluish air of the vast place the three-dimensional tapestry of things to come. Or so it seemed.

He saw the years of Man pass in massive, kaleidoscopic scenes of war and destruction, peace and social integration. However, this did not appear to be precisely the history of the nations of Earth as he knew them. It seemed to be a figurative history of Man, in a general sense, or as of Man evolved *somewhere else*, not necessarily on Earth.

HE SAW unimaginable progress toward godliness, while his strange guide, or host, explained: "Once Man evolves, wherever it may be in the universe, or the Subcosmos, or the Supercosmos, he spends usually a quarter of a million years or so as a purely physical creature, depending



"I am progress through experience!"

on various factors which are in the majority influenced by the radiations of the particular sun under which he lives. For all his technical progress he remains a mere bundle of ganglia, nerve-cells responding to stimuli, like a glorified vegetable. Each day of his wakeful life he devotes to the pursuit of the prime physical necessities: food, clothing and shelter. And his diet and habits of health and his ignorance in regard to medical science contribute to a low level of life expectancy, even in spite of beneficial sun radiations.

"Wisdom is the first step toward peace, security, physical emancipation and the next phase of Man's development. But Wisdom cannot be taught or learned. It is acquired through years of experience. It can be written down in books, but who can capture its true significance but another wiseman? Therefore, while Man's individual lifespan is short the Wisemen are too few and too aged to ever assert themselves effectively. Ignorance continues to govern Man's actions and he passes inevitably through a period of self-destruction.

"Then one day he learns how to take better care of himself. He purifies his diet, subtracting insoluble fats and salts, and he advances in medical science. He stops using metallic substances and other non-



organic materials as medicine and learns how to employ specialized human cells and natural processes in order to achieve health. If some of the sun's radiations are unhealthful, he shuts them out, likewise, allowing only the beneficial ones to reach him.

"As a result, he ceases to age. But as age is relative to size, growth must gradually continue with continuing youth. It is like mass and inertia. Small things have a small age. You have said that 'Man's years are three score and ten,' yet the Earth's age can be measured in millions of years. It is proportionately larger. Growth cessation in Man is the announcement of his mortality. He will surely die if he stops growing. For when growth stops, youth is gone.

"Therefore, immortal Man must grow. He becomes gigantic, like a god, and he must seek new worlds in which to live. The stars of space exist in endless number. They are suns like your own—or better. About them revolve unnumbered worlds, many of them far better than Earth.

"With increased life comes the stabilization of Wisdom and its domination of Ignorance. Thus Man ceases to destroy himself. He puts the machine to work to produce his prime necessities and thus frees himself from physical work. He is ready to enter the mental phase of his evolution.

"He becomes a mentalist, magnifying his findings with thought-projecting machines, dream-making machines and mental conditioner machines. He can read his fellow's thoughts, so that all hypocrisy and deceit must vanish. So he progresses on the road toward godliness. He is great and powerful of stature, he is wise and endless in years, he can traverse the void of space

to any star he pleases, he possesses, the knowledge of life and death and can even create life out of inert matter. In short, Man can become a god. And this, in fact, is his goal."

By this time, Kent was looking upon a marvelous machine world which created miracles that, to his own senses, were godly doings. He was looking upon the very life of the gods, beyond words to describe. His spirit was filled with a joyous hope for Man's future.

Suddenly, the pictures vanished, much to his regret. "You have seen the ramifications of truth-seeking—the partial extension of the *possibility* of Man's progress. Now you must pass on to specific truths and learn something of fact which has already come to pass on your own world."

KENT felt himself rising in the air. He rose swiftly, supported by an invisible force. And as he rose, he also grew. Size was infinite, and time was eternal, he thought. A great exhilaration filled his being. In the first tower he had been cleansed of Ignorance and Vanity. In the second tower he had been treated to the wine of knowledge improved by Wisdom's aging.

He emerged on the roof of the second tower and unhesitatingly crossed the bridge to the third. . . .

The Third Tower

THIS was the largest tower he had seen. It was so vast that he could not see its farther wall. And he knew at once by the aspect of the place that here was proportionately far more to be learned.

He walked upon a vast desert in a



"I am Man's History!"

greenish yellow light. Some giant hand had written on the sands before him: THE SANDS OF TIME. His footprints, as he progressed, left a lonely track behind him.

But this desert was by no means empty. He walked through the most gigantic wax museum which he had ever seen. Statues of men, women, horses, buildings, wagons, ships, and an endless variety of other things marched away on either side of his path to far horizons. No matter how far he walked, he found himself surrounded by this beautiful, paralyzed pageant. At even intervals he passed what seemed to be a sort of marker stone, giving the date. One he read said: THEREFORE 1800.

He stopped and looked back a few paces at some of the marvelous statues and structures he had passed. Not far back he saw unmistakable signs of the War of 1812, in the 19th century section. More than halfway back he had seen the Confederate soldiers of the Civil War. He knew that his eyes were being treated to a greater historical pageant than most men had ever dreamed of. He was literally walking down the halls of History.

In awed silence and with reverent step, he walked slowly onward. When he looked at the back of the marker stone he read the word: BECAUSE. He was going backward through history, for he recognized now certain outstanding characters and events of the 18th century (1700-1800).

He saw the French Revolution, even came upon the astute Voltaire hard at work by candle light. And he came upon Washington and saw the Battle of Independence. He saw the faces of Suffering and Idealism and Hope. There was also James Watt at work on his steam engine.

He wanted to pause especially before

statues of Catherine the Great, Frederick the Great, and Maria Theresa, which were all exquisitely perfect and complete with real jewelry, but some mysterious force drove him rapidly onward, and before he knew it he passed another marker: THEREFORE-1700. On its reverse side he saw again the word: BECAUSE.

Here he rushed through English history and out of the corner of his eye caught certain early scientists doing things. He walked through the middle of hellish scenes from the Thirty Years War, passed the sixteen hundred marker and recognized the pirates under Pizarro in their conquest of Peru.

Between each marker was such a world of events portrayed that he could have spent a year in each section without regret. Yet something pushed him onward, faster and faster, as though all this did not matter as much as what was yet to come.

And so he passed Gutenberg at his printing press, and Columbus on board his ship. He saw the fall of Constantinople, the towering castles of feudal times, the Crusades. Faster and faster he went, through the decline of the Roman Empire into its heyday; even the life of Christ flitted by him without a moment to spare.

Now the marker stones went up in number: THEREFORE-200 B.C.— 300 B.C., 400 B.C. He caught brief glimpses of Greek, Roman and Egyptian wars, passing almost by whole millenniums of time across the endless sands. He saw the pyramids and the sphynx in their building by a strange and beautiful *non-Egyptian* people, Moses and the Exodus from Egypt, even the Tower of Babel.

But now something new occurred. The marker stones appeared less taken care of

and more broken down. The statues and scenes on either side of his path were not too well arranged any more. Some had fallen over into the dust. Some lay half buried and unrecognizable. The BECAUSES and the THEREFORES were getting confused and hard to find.

He heard the hollow sounds of temple pillars crashing ponderously, to the ground. The ground, itself, trembled, and he felt apprehensive. Were the sands of Time running out? Where did they lead from here? If he remembered correctly, he would soon come—

He heard it!—*the roar of the waters!* It was the great flood of ancient times! He stopped, uncertain, unwilling to go forward. But he was pushed forward.

HE TOPPED a low hill to look out upon the angry waters of the Diluvium, itself. The surf below was washing the nondescript ruins of a mighty city. Everything in that city had been reduced to ghastly rubble.

On the shore amidst the ruins sat a man in robe and sandals who had a white beard and a balding head. He looked up at Kent and beckoned to him, as though he had been waiting for him for some time.

"Look at this chart," he said, as Kent approached. And he held up a large scroll on which it seemed he had been working. Kent looked at it and saw a long black line which was labeled *800,000 years*. Toward the right end of the line he saw a small vertical line, followed by the word: *10,000 years, modern Man's written history*.

"Eight hundred thousand years!" exclaimed the old man. His sad eyes looked at Kent reproachfully. "For eight hundred thousand years Earth has been completely inhabitable by human beings such as ourselves. Your written history covers hardly more than one percent of that time, yet you pride yourself in knowing so very much about everything! How far does your knowledge reach beyond the Flood? If it reaches at all, the most important features are cast aside as parables."

"What are those important features?" queried Kent.

The man's eyes burned with enthusiasm. "That *giants* walked the Earth!" he said. "They were god-men, those giants. Come, cross the flood with me and I shall show them to you!"

On the shore nearby was a boat with oars. Kent knew he was to cross the waters in this skiff, so he stepped toward it without hesitation. The old man followed, like the boatman of the River Styx. And he thought how true it was that Man knew so little, after all, concerning ancient times. A lot could have happened and been deeply buried in the Sands of Time, even hundreds of thousands of years before the Sphinx was ever thought of. For time was infinite with the Cosmos, and all was relative. In the past all things could have happened which will yet occur in the future. . . .

When the skiff had worked its way well out upon the waters to a point where no land was in sight, Kent remarked about it to the boatman.

"No land?" said he. "Land ho! Land ho!"

And in that instant Kent saw land in two directions. He saw land rising up from beneath the ocean waves. Great tides were thrown back as two continental land masses arose from the depths, one ahead and one behind.

"Behind us lies Atlantis," said the boatman, tugging resolutely at his oars. "Ahead lies Lemuria. These were ancient land masses whose sinking raised the North American continent out of the water. Hence the legend of the Flood in all countries and among all races of people, for these continents were largely the home of terrestrial Man."

When they got to the shore of Lemuria they found it already clad in the dense verdure which belonged to a long gone prehistoric era. In those vast, post-carboniferous jungles roamed terrible and monstrous beasts. This period surely belonged to one beyond the ken of human knowledge, immeasurably lost in the past, thought Kent.

"You are no longer going backward in history," explained the boatman, walking with him up the shore. "Here you see it rapidly, but in chronological order. Behold!" he said, pointing to the sky.

KENT looked up and saw, to his astonishment, an uncountable number of very beautiful vessels which looked like mighty submarines. At first, they were only tiny specks in the sky. Then soon some appeared to be like toy models. Very quickly, however, he saw them sweep majestically overhead in gigantic, mile long proportion.

"At this time," explained Kent's guide, "Earth's indigenous humans were cave people dwelling in animal darkness. These advanced specimens of Man came among them like gods. They had had eons of time to develop in another part of the universe, until they became immortal wisemen. But their own sun had grown old and begun to throw out too many rays which were detrimental to life, so they were forced to search for a new world in another solar system, far from their ancient home. This was the secret of their immortality, basically. For they knew that Creation surged on tides of disintegration and integration, destruction of matter and construction of matter. Whenever in one part of the universe, the disintegration, with its harmful radiations, was occurring, in still another part an equal and opposite integration, with its accompanying beneficial radiations, was occurring. So they learned to follow the beneficial tides and never subject themselves to the disintegrant forces of nature. They traversed the terrible voids of the interstellar abyss, at speeds surpassing that of light, itself, and here they have found, at least momentarily, a new home.

"In those ancient days on Earth, the sun's rays were highly beneficial, and plant life was as irrepressible as animal life. Plant and animal alike grew to great sizes and lived to a great age. It was a fit home for these god-men of old. Because of their immigration to Earth your modern Earthmen still cherish legends of ancient gods such as Zeus, Thor and Wotan, with their might and their thunderbolts. Such supermen existed, as you see before you. Behold their progress!"

Kent saw, with an accelerated historical perspective, how these giant, beautiful beings of another time rapidly created out of Earth's riotous jungles a heavenly Paradise. Great, glistening cities were built, in ages beyond reckoning before the Flood. These people prepared their diet, until they were pure and positively beneficial, extracting all sources of poisoning or insoluble residue. Such detrimental radiations as reached them from outer space they could shield out of their great cities by means of electrical force fields.

They lived and loved generously, wisely, without deceit or waste or evasion. They grew as eternally as they lived, and their god-like machines, which were but compli-

cated extensions of their marvelous intellects, developed in size as necessity demanded. The machines were as eternal as their makers.

"However," said Kent's guide, "there came a time when three harmful factors had to be anticipated, and this brought about a great change. One factor was the sun. It was beginning to become detrimental like that previous sun they had left in ages past. Some felt that they would have to leave this otherwise beautiful world and seek again a home in space on another far flung world. But others there were who did not wish to enter on the long star-road again. Instead, they proposed building a great empire underneath the ground, away from the sun's powerful detrimental rays which now required too much force field energy to shield out. Below the Earth's surface, they could filter in only the good rays and supply a number of their own through artificial means. Their great disintegrator beams which could melt mountains could easily carve out vast caverns for them, and their integrator beams could then solidify the walls of those caverns until they were harder, than steel and hundreds of feet thick. Even earthquakes and ocean's weight were no match for such walls.

"A second factor which influenced them to begin the construction of such caverns was the advent in Earthly skies of enemy races of supermen. Great wars ensued, and from these events you have derived the legend of the Battle of the Titans."

Kent gazed in awe at the spectacle of these actual wars. He saw these great men hurl bolts of death from their cities and ships, half across the world, shattering mountains and blasting cities out of existence.

"So the first god-like settlers of Earth prepared themselves an underground home. Their caverns eventually extended to most of Earth's then existant continents.

"But there came a third factor—geological changes. Lemuria and Atlantis were to sink and the American continent was to rise from the depths of the ocean. This and the factor of continuing growth finally led them to travel out upon the star-road after all."

KENT, to his sorrow, saw them depart in their thousands of great ships, leav-

ing Earth to its upheavals and its poisoning sun which now brought early death to ordinary men and unprotected plants and animals. No more would the god-life flourish here. Only stunted and short-lived, life henceforth would be a farce, pointless because it was so temporary.

"From this point begins another phase of knowledge which you must absorb," explained the guide. "So go now to the fourth tower!"

A great wind came and caught Kent in a cyclone vortex. Flood swept over the land of Lemuria beneath him and he shot upward. As though in a dream, he emerged and saw before him the fourth. . . .

The Fourth Tower

THIS tower was darker and more forbidding in aspect, which caused Kent to hesitate, but again something drove him forward. He passed between great monolithic stones as though into a cavern. Several great bats flew out above his head. He felt as though he were underneath the ground. Great rocks, like small mountains, lay sideways on the ground, and he walked among them in the semi-darkness like a Lilliputian. This appeared to him to be a lonely place to which men should not come, akin to that land of shadows depicted in Grecian legend as the place of departed souls.

Soon there appeared before him, coming toward him on the shadowed path between the giant rocks, a man in a black robe. As the man drew nearer, Kent saw that he was sightless. His vacantly staring eyes were almost pure white, like scar-tissue.

"Before you travel onward," said this man, in a sepulchral tone, "you must learn what I shall tell you now."

He motioned for Kent to sit down on a boulder nearby, just as though he could see without eyes. Kent sat down.

"Neöphytes who enter the fourth tower," said the blind man, "have been purged of Vanity and are thus seekers of the Truth. They also have faith in the god-destiny of Man. And they have been given knowledge of the great Elder Race, of the ancient god-like beings who once lived on Earth and made of it a Paradise, beings who, wherever they may be living their heavenly lives today, are referred to by us as the Elder Gods. We do not worship these

beings, but they serve as a pattern for that ideal Perfection which Man does personify as the One God. It is toward this state that Man must ever gravitate, because it is fundamental law.

"You have been shown how the Elder Race left the Earth. But now you must be told that there were certain less perfect members of the race who stayed behind, probably because they had quarreled openly with their superiors and were thus condemned to remain. These were, in fact, the 'fallen angels' of legendary fame. And they did go into the Pit, which consisted of the caverns beneath the Earth which the Elder Race had left behind. For here were all the great machines which were still in a fit condition to support them practically as they had the god-like race which had made them.

"But a great degeneracy crept upon them and, as your own Bible says, they 'looked upon the daughters of men.' That is, they married into the ordinary race of the indigenous Earthmen and thereby degenerated further.

"It was not long after this that the great geological change occurred. Earth's axis slipped from the perpendicular, and the jolt sank Atlantis and Lemuria. Millions of men and animals were destroyed.

"But some things survived to live in a very much poisoned world, where now, due to Earth's tipped axis, there was no eternal spring of Paradise, and the menacing rainbow rode the skies. The first appearance of the rainbow signified that the sun's carbon coat was gone and now that poisoning orb burned metals, casting out the deceptively beautiful spectrum of *death*. Then truly were Man's years only three score and ten. He had degenerated to a stunted dwarf who died before he could find time to learn to think.

"But some there were who entered the ancient caverns of the Elder Race, through secret portals, and this is a fact which brought about the next most important phase of Man's history.

"At first, it was a relatively simple matter for them to run the great machines. The machines used water as fuel, breaking water into hydrogen and oxygen and thence operating atomically, using hydrogen as the end fuel. The fuel was always as limitless as the energy which these machines could release. They bathed the cavern people in

beneficial stimulant rays and gave them a sort of synthetic immortality.

"But the ancient legend of Hell and the belief in the forces of Evil living in the Pit beneath the Earth owe their origin to the failure of these very ancient machines. Perfect as they were, if not properly maintained they would deteriorate through the ages. The deterioration came in the form of accumulated radioactive deposits in certain of them, especially those which performed telepathic or mental functions. The constant exposure to this type of poisoning created the *deros*, or devils.

"A dero is a *detrimental robot*. His thought may start out constructively, but due to a negative twist to his thinking caused by detrimental energy radiation from the machines, the end result is a destructive thought.

"So, whereas the surface man usually spends his time in constructive pursuits, at least individually, the cave dero spends his time just as busily and energetically in destructive or detrimental pursuits.

"Now, to become a dero was not always the fate of the cavern people. There were some who had machines which, due to various special circumstances, were not as heavily laden with radioactive deposits. These people early identified the true *deros* as enemies and succeeded in sealing themselves off in various places to live their own lives. These are called the *tero*, or beneficial robots, people who are still capable of dedicating their energies to constructive purposes. The surface man owes the *tero* much, but unfortunately the *tero* were fewer in number by far than the *dero*, and since those ancient times when the first *mech* or machine began to break down and emit detrimental energy, the *dero* has governed the affairs of men."

The blind man pointed like a grim spectre at a great, mountainous rock nearby, which towered upward into formidable darkness. "This way you must go," he said, "to learn how the *dero* has influenced man from the dawn of your own written history . . . Go!"

KENT rose silently to his feet and turned resolutely toward the great rock. There he saw a stairway cut in the stone. It seemed to be incredibly ancient. He felt, as he started to climb it, like Moses ascending Sinai. He ascended into dark-



"I am those who see not!"

ness and did not sense the old exhilaration. Rather he felt that the strengths given to him in the other towers would be needed to face that which was to come.

He emerged from the fourth tower and looked amazed at the fifth. It loomed above him like that secret entrance to Hell which Dante claims to have discovered. Nothing could have been as uninviting as that cavernous maw which seemed to yearn for his very soul. Yet he stepped across the tattered bridge which led to it and entered. . . .

The Fifth Tower

WHEN he entered, he knew at once that he was in a place which was a facsimile of the Pit, or of the *dero* caverns beneath the surface of the Earth. Darkness more profound than that which he had encountered in the previous tower now confronted him. An uneven pathway led crookedly among fallen monolithic stones, and a ponderous ceiling arched low over his head like gathering clouds of doom. He sensed the terrible weight of miles of earth upon these rocks. Here, out of some deeper darkness before him, emerged the breath of Evil. His spirit cringed within him, out of revulsion more than fear, but still he was made by an unseen force to tread onward.

As he advanced into a more cavernous darkness his footsteps rang unaccountably, echoing back at him like the cacophony of

demon laughter.

Suddenly, a black, gigantic shadow loomed up out of nothingness and the foul stench of a sweating beast filled his nostrils. The gigantic face that looked upon him was that of Satan! No man could look upon that evil countenance and retain his soul. Or so it seemed to him. He cried out in mortal terror while the vast shadow-demon before him shook the cavern with triumphant laughter. Satan pointed a finger at him, while his fiery eyes glared greedily, and Kent felt a coldness envelop him, accompanied by an imploding blackness.

Then, suddenly, he felt as though some hand had saved him, and he steadied himself. The vision of Satan vanished. In his mind he sensed a calm voice saying: "Even we do not tread the path on which you walk. But we shall guide and protect you as you advance to look upon that which surface men refer to as Hell. And you shall see that no terrifying imaginings of Man can do justice to this place. Advance!"

Kent walked onward, but only because he was forced to. In spite of the protection which had been offered him, he knew that he was in some real danger.

"The image of Satan," continued the voice of his protector, "was created out of the imagination of a clever dero. He transmitted this thought into a telaug or telepathic projector and, augmenting the image thousands of times by means of the machine, he directed it at your mind. Such rays can be directed upward toward the surface world and can cause many a man to go insane, shrieking that he is tormented by voices and monstrous images. Your insane asylums contain many such dero victims, who still continue to be tormented.

"From ancient times, when the Egyptians were first settling in the Nile valley, such rays of torment have been directed at surface men. Sometimes such dreams and visions have been made to materialize by means of the telesolidograph machine, which forms three-dimensional, opaque images. Thus began 'spiritualism,' which has been rightly termed by clergymen as *demonism*. For demons, or dero, are the masters of spiritualism by means of which surface man may be misguided.

"Through this means the next step was achieved. If the surface subject was willing to make certain concessions he would be given certain 'powers.' Through means

of the teleportation apparatus, surface beings could be—and still can, be—transported to Hell. Some famous witches have permitted themselves to be used in Hell in return for the 'Devil's' favors on the surface world. We shall show you an actual case. . . ."

Suddenly Kent stood in a small cavern where he could look out upon a vast banquet hall and not be seen himself. A nondescript conglomeration of human beings dressed in mediaeval clothing and even ancient Roman costumes reveled about the feast table, drinking and carousing in the fullest tradition of ancient emperial splendour.

BUT there were some features of this banquet which had never been witnessed upon the surface of Earth. For, among other horrors, Kent saw a roasted girl served on a giant silver platter to cannibals! He wanted to retch, to turn away, but he was forced to see more.

All about these revelers at the table were dancing girls, most of them nude, who danced voluptuously to music which was designed to excite the erotic senses. There were also invisible vibrations in that room which excited these senses to an unimaginable extent. When men at the table grew tired of illicit food and drink (white wine reddened by human blood!) they would avail themselves of a dancing girl, quite oblivious to the rest of the crowd.

These girls, wearing expression of delight, suffered the tortures of Hell, because they had to give themselves lest they be subjected to the greater tortures. There was one among them, however, whose soul was not tortured. She wore nothing but one diaphanous black veil, which swirled like a dark nebula about her too voluptuous form as she danced. Hers was a genuine pleasure when she yielded her special charms to the more privileged of the feasters. But this whore of Hell was so deliberately lewd that Kent refused to look. He fought the controls which had been placed upon him and closed his eyes.

"We are sorry," came the voice of his protector, "but we have spared you, really, from worse scenes. Look now and you will see something else."

Kent looked, hesitantly, and was surprised to be looking at the same lewd woman who had cavorted with men at the

banquet, now dressed like a respectable Puritan woman, walking down a village street sometime back in the seventeenth century.

"Remember Salem?" came the voice, suggestively. And thus he knew that he was looking upon a witch, and he realized that his own sympathy for those Salem women, while reading history, because of their handling by "superstitious" and "ignorant" townspeople, had in some cases been wasted.

The woman walked with an air of chasteness, and passing villagers greeted her with respect, for she was the wife of one of the leading citizens. But when no one was near her expression turned to one of evil triumph. This night she would get rid of an enemy who knew too much.

When she got home, she took out of an old trunk a remarkable doll. It looked very much like the village preacher who had passed her on the way home. This she put some finishing touches to, and when night came she made some signs over it. Then she thrust a needle directly through its heart.

Kent then saw a dero in one of the caves. He saw the démon looking into a viewing screen, saw the image of the Puritan woman thrusting the pin into the doll.

"Katy communicates well," said the dero to some unseen companion. "She desires the preacher to die of 'heart trouble.' I wish they could think up something new. But 'tis always 'heart trouble.' Ah, well, as long as the stupid fools cannot divine the actual causes it matters not. Katy is great sport at the feasts. 'Tis always a great find to get a willing dancer rather than have to make robots out of the girls. As long as Katy remains young and beautiful and willing why should we not join her in her fun on the surface? Sure, let's kill the old ———. People always expect preachers to die prematurely, being so close to Heaven. They think it is respectable. Give him a jolt, will you?"

Kent then saw a bedroom where the preacher slept. The man's eyes opened, an expression of pain suffusing his countenance. Then he suddenly stiffened in death.

"So it was," said the voice of Kent's protector, "that the deros gave out nefarious assistance to those who would cooperate with them and keep a silent tongue in their



"I buy Men's souls!"

heads. This intercourse between surface people and cavern people has been known variously as witchcraft, demonism, spiritualism, voodooism, clairvoyance, legerdemain, and black magic. But the dero of the caves made even a mockery of religion, inspiring directly the cruelties of the Spanish Inquisition, and the ancient Christian persecutions under the Romans.

"In every walk of life they have turned man from the paths of construction. Through the perpetuation of dogma and superstition they have deterred man in his due progress.

"Why is this? Because, in the first place, the dero wants nothing to do with our unfiltered sunlight. It would kill him quickly. He looks upon his cavern world as his salvation. But, in the second place, he is suspicious of surface man's progress. He fears that if he progresses far enough he may discover the dero and find some way to drive him out of the caverns. For this reason the dero take a direct hand in deterring man. Just what kind of a struggle is going on in modern times you must also learn quickly, because that struggle is rapidly approaching a dreaded climax. Come!"

KENT found a path in the dark cavern which led precipitously upward, and

he climbed it gladly . . .

The Sixth Tower

WHEN Kent climbed out on the roof of the fifth tower and looked at the sixth, he thought, for a moment, that he was looking at the Empire State Building, so neat and modern did it look. This place he entered much more confidently.

Once inside, he saw a welcome blue sky filled with aerial commerce. And before him stretched Chicago of 1970, as familiar to him as ham and eggs. He stood there for a long time contemplating the roaring rush of modern life that was Chicago. He thought of man's great forward strides in science and he wondered how the dero could fight modern man, and of how it would be to stuff a couple of atomic bombs down their throats.

Then he was suddenly confronted with a vision of deros in a cavern which he somehow knew was underneath Chicago. There were about a dozen deros seated around an ancient stone table, all of whom were engaged in earnest conversation.

"Modern man knows very much about science," said one of them. "He has already discovered atomic integration and disintegration. He has produced in his laboratories the phenomena of transference, whereby matter becomes energy."

"The outstanding feature is that he is a smart devil, surface man," commented another dero. "We fools down here can only rely on our one great asset—the ancient mech. With the mech we could still wipe out the surface world's civilizations. But we have actually slipped behind the surface man's progress in technical knowledge and skill. I believe there are some among them who might be able to reproduce, at least crudely, one of the ancient machines if they were allowed to examine it."

"Well, we have succeeded so far in tripping him up by means of the pleasure technique," remarked another. "The production of juke boxes and motion pictures of the erotic and senseless type, as well as idiotic radio programs and insane jingle-jangle in their songs, has all reached a new peak, either in spite of or because of the war. The fools even bring juke boxes and the silliest type of films into their army camps so that they can take the men's minds off the war. What imbeciles! If

they only realized that it is *thinking* which we fear the most! But they cooperate beautifully. They all flock to anything that can nullify thought, to any means of killing time so that original thinking will not occur. It seems to me to be a very good safeguard for us, this consistent stupidity of man."

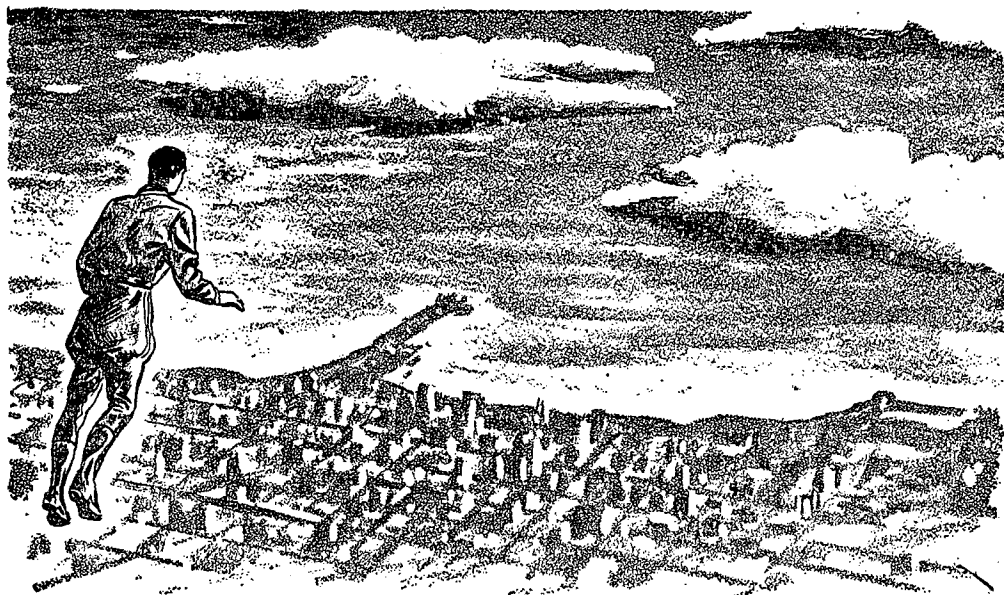
"But Nicholas the First will soon conquer even America," said another dero, "and under his rule men may actually have time to think, because he prides himself on his intellectuality and would ban anything but serious and educational pictures, even though they may be prepared by the State and hence quite biased. Juke boxes he would junk, and that has been one of our most successful instruments for sustaining zoot-suitism and jitterbugging."

"Nicholas' man Svenga has made a stupid treaty, offering us all the slaves and food we want. Ha! As if we couldn't take them anyway! Last week we raked in over a hundred Chicago beauties which the Bureau of Missing Persons obligingly turned into 'cases under investigation.' But they always give up, and they never get wise. If they do get wise, all we have to do is talk to them and give them a few wild dreams, and the 'law' again obliges us by putting such people into insane asylums. The more they know and try to tell, the more solitary becomes their confinement. Our absolute guarantee of safety is that ineradicable fatal vanity of his which leads him to believe that anything which he, himself, can't think up or invent is entirely impossible, and that if anybody believes otherwise he belongs in the insane asylum. I tell you, it's wonderful!"

"But we must strike at Nicholas' empire," said the first dero who had spoken. "Now is the time, while Agarthi still lies unprepared."

SUDDENLY the vision vanished from Kent's view, to be replaced again by the previous vista of bustling Chicago.

"And so it is," said the invisible guide to Kent. "Surface men today would place a man in the insane asylum if he spoke openly of these things. That is why not much progress has been made toward protecting man from the evil influences of the dero. As you heard one of them say, their greatest protection is man's own incredulity. It is that vanity which perpetuates igno-



"Just as I steal your women for slaves, so can I
destroy your cities in an instant with dis rays!"

rance. If what I am saying were written down for common men to read they would laugh at it in the ignorance which is vanity, *not knowing that it is a ghastly truth*, and that the dero rub their hands approvingly at such unbelieving laughter. Surface man obliges the dero, enabling the latter to even influence government, always leading man into the pathways of destruction and defeat.

"A grave danger thus threatens the world. With dis-ray the dero can cause whole cities like Chicago to vanish from the surface of the Earth. The reason they have not done this sooner is that the surface world supplies them with food for their sustenance and slaves for their pleasure. But more than this, Agarthi stands as a threat against them. For it can destroy many of the dero caves, being equipped with the best of the machines of the elder race. Unfortunately, those machines are too few and far removed from some of the scenes of action."

"But now you must know fully of Agarthi before you will be completely ready to be of service to us. Come!"

Kent saw a bright path of pure light winding upward into the sky, and he followed it, as though he expected to see the

pearly gates of Heaven . . .

The Seventh Tower

WHEN Kent stepped out on the roof of the sixth tower and looked at the seventh, he knew that he was about to enter Agarthi, itself. For there before him was an ancient entrance as though in the side of a mountain. And this entrance was shaped like the portal of a great temple, but in simple lines, in a style which was vaguely Mayan, minus the carvings.

As he entered he sensed at once a reassuring peacefulness and calm. Here was the quiet sanctuary of wisdom.

He walked down a great hall that was like a broad avenue. Beautiful, ancient cars rolled past him silently. Kindly looking people smiled knowingly at him from these cars as they passed. The place was filled with such a clean atmosphere and the streets were so immaculate that he felt as though he should remove his shoes.

But the same guiding force moved him onward. He walked into a great, softly lighted cavern and beheld a stone city of eternal beauty. Here was the beauty of simplicity. There was no crowding. Houses were spacious, filled with gardens and pools

and fountains, lined with verandas and roomy roof gardens. Avenues were broad and the sidewalks roomy enough for streams of street traffic.

The whole city was built on a plan so as to converge toward a huge building at the further extremity of the cave. This was a tremendous palace, but more massive than it was ornate. Toward this, Kent's feet were forced to lead him.

In awe he climbed the seemingly interminable steps of this palace and entered a mighty doorway. Here were no guards standing about in traditional fashion, blocking his passage with spears or bayonets. For no weapons or guards seemed to be necessary. Only a kindly looking people passed in and out of the building, and all smiled knowingly at him as had the others in the cars he had seen in the streets.

Soon he found himself entering a great throne room, which was silent and empty. Empty except for one person, who sat on a great throne on a raised dais. This person was Kent's idea of the ultimate man. He looked something like the fellow whom he had met in the second tower.

"Who are you?" he asked, just as he had asked the other.

"I am known as the King of the World," he said, in a calm, resonant and friendly voice. "I have had you brought here so that I might tell you something about Agarthi. Please be seated."

Kent, not finding a chair, sat down on the steps below the throne. The King of the World smiled at him in a friendly fashion and began his story.

"Long ago," he said, "when the Elder Race left the Earth to seek their home among the stars, there were some left behind who were not as degenerate as they had been judged to be. One or two of these great beings soon anticipated the very development of the dero which you have witnessed. They were not able to stop the development, but they were able to educate their sons, born of Earthly mothers, to run the machines and take care of them. As time passed, these advanced dero found this cavern in the Himalayan mountains, and they have remained here ever since.

"At first they planned only to seclude themselves from the dero and from man, as well. But as the ages passed they saw the terrible work of the dero progress, until

they had to take pity on surface man for his plight, even in spite of the latter's persistent vanity and stupidity. So in recent times Agarthi has begun to prepare itself. The chief danger is that the dero still possess ancient ships of space. The dero are afraid of them because the elder race left them behind as 'defective.' Yet it is known that these ships are at least operative within the immediate effective range of Earth's gravitation, and with such ships the dero could concentrate their weapons above Agarthi and cause us great damage, even in spite of defense weapons. Or the dero could even escape to Mars or Venus, to return at a later date and torment terrestrial man. The only thing which those ancient ships cannot do is to achieve the sustained high velocities necessary to traverse interstellar space to other solar systems. If they could do that they should have left this solar system long ago.

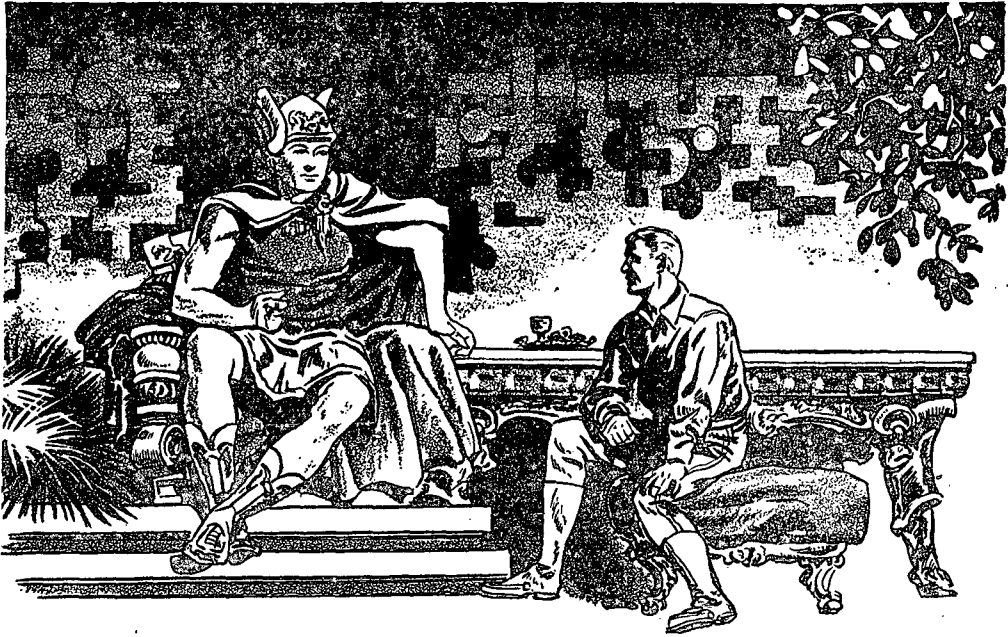
"Now Agarthi has begun to build a fleet of new ships which would enable us to deploy our forces or, if things become too difficult, escape, ourselves, even to another solar system, if we dared undertake such a dangerous journey.

But we of Agarthi would not abandon mankind. We believe that this Earth is still worth living and fighting for. True, the sun is poisonous, but with proper precautions a man could still live here for from three hundred to five hundred years. A Utopia could still be made here if we could rid ourselves of the deros. Then I, myself, would take over the world and make it that benevolent Utopia which I know I can make it.

"However, the actions of Nicholas the First, who is my rival in a way—" he smiled indulgently—"have caused the dero to advance their plans at a time when we are as yet unprepared. If they were to attack us now—and they must surely attack us before they attack Nicholas because we will fight them, regardless—they would no doubt be able to destroy us. Then would man's civilization be truly ruined by them, at will, and with no further protection from Agarthi. The dero would thrive mightily in their caves, sucking like leeches at a defenseless mass of disorganized and helpless survivors."

Kent was moved to speak. "But what can I do to help in all this?"

"Your friend Stephen Germain," replied



"I am the King of the World"

the other, "has requested that you be indoctrinated, as he feels that it will make you useful to him and to us as a sort of personal 'in the flesh' representative in the United States. If there be any other reasons, they will be explained to you directly by Stephen Germain."

EVERYTHING suddenly faded into nothingness, and Kent woke up in bed to find himself wet with perspiration. His head ached dully. His mouth was dry. His legs felt numb.

"Steve!" he called, testily. "Steve!"

That is all for now, came Germain's tired thought. I need as much rest as you, so let's get some sleep. I will contact you further tomorrow. But I can tell you this much. I need you to make first hand physical contacts for me among government officials, as I find that mental contact only confuses them and makes them go see psychiatrists or suspect that they are insane; or if they did believe me others might think the wrong thing. So a strongly sympathetic physical front in the U.S. is what I need, and that's you. If I succeed in the thing I am going to try I'll need some fast action on your part. Stand by, Slim!

"But Steve, what about Lillian!"

I am protecting her as best I can. She is momentarily safe although in very undesirable surroundings.

"Steve! What is it you are going to try to do?"

I can't tell you now. However, I may not come through this thing. If I don't, then I guess our number is up—for everybody on the surface. Some Argarthians may escape into space. However, if I succeed, then I'll be seeing you!

"Steve!"

But Germain's thought was gone from Kent—just where, he could not know . . . Indeed, even Agarthi would not have been so bold as to divine correctly just where it was that Germain planned to go, much less the deros. Only one man knew, and that was Stephen Germain . . .

CHAPTE XI

King of Ghouls

LIEUTENANT Lillian Germain had reached the saturation point of battle strain. For twelve days and nights she had looked almost as much upon the entrails as upon the outward features of the

fighting men and women with whom she lived and suffered. During that period, Cuban skies above her tired, disheveled and bandaged head had been filled with enemy bombers and strafers. There seemed to be no end to them ever since they took Caracas. She felt, as Kent had, that the end was inevitable, and that it was very near.

One night just outside Havana, near an anti-aircraft battery, she was caught in a particularly thick bombardment. Before, in other raids, she had recognized a certain factor of safety in the occurrence of the interstices between explosions. But this night the bombs seemed to rain down in an interlocking pattern. She sensed stronger than ever before the vivid reality of mortal danger in the growing thickness of the explosion pattern. She was suddenly paralyzed with the presentiment that this night her number was up.

She lay flat on her stomach, her wide, horrified eyes staring over dead bodies into a night of fire and annihilation. She saw three ambulances blast apart into dismembered automobile and human parts, gruesome pieces silhouetted too brilliantly against the flashing tapestry of destruction. The unsupportable sound of it all welled up like a flood of molten metal in her brain. Destruction, like the phantom of Mars, crept nearer, closing her in a circle of disintegration. The sky shook with the sound of engines. The stars were gone behind a screen of smoke and fire—and a myriad of black wings. Ground rocket batteries flashed bravely back, then scattered like twigs in the wind before the demolition blasts. Trucks and motorcycles gyrated crazily through craters where roads had been. Men ran between them. Then blue-white angry blasts wiped everything out before her, or wherever she looked.

She heard a soldier crying for home, his face groveling in mud. "Mom! Mom!" he sobbed, as though his heart had lips that spoke.

She tried to crawl toward him over the trembling ground and the half-buried dead. Suddenly she herself began to shake. Her whole mind and body seemed to be consumed by an all pervading vibration. It seemed to shake her into fragments. The roar of a giant transformer drowned out the chaotic noise of battle. She held her temples and screamed as she sensed that

she was literally flying apart. . . .

MUCH to her surprise, she regained consciousness. Before she opened her eyes she experienced the curious sensation of pain fading swiftly into a pleasurable sense of well-being. It was as though she were being swept with some beam of healing, stimulating light. In fact, it stimulated her to a point which she knew was abnormal. So she opened her eyes.

She lay on the polished metal floor of a glass cage. Dimly, beyond its walls she heard and saw great machines working. A door opened, and a large man reached in and pulled her out, none too gently.

She was in a large room that looked like a cavern. It was filled with an array of gigantic machines whose purpose she could not have divined had her life depended on it. Indirect lighting came from somewhere, but she was not as concerned about such details as she was about the man who confronted her.

He was big, about the size of the Russian Major in Santa Cruz. His hair was bright red and his face was heavily freckled, but deathly pale. His eyes were a faded brown. His lips were thick and rather indefinite in shape. Every line in his face was one which had been woven there by the cruel personality of a maniac.

He wore mediaeval type leggings and boots, a wide leather belt, and a leathern jacket. This was open and sleeveless, revealing hairy chest and arms.

"Welcome home, my luscious, little pidgeon!" he said, in a hoarse voice. His eyes were obviously unaccustomed to subterfuge. He drank in her anatomy as pervertedly as possible.

"Where am I?" she demanded, strengthened by a maddening fear.

"Surface imbeciles have always referred to our blissful little Paradise as Hell," he said, drawing her close to him. "But we like it! Maybe you could learn to like it, too!"

He tried to kiss her, but she struck him as she had Nicholas the First, this time making full use of her ring. It tore a bloody gash in him. But she suddenly found out that she was not dealing with a human being, not even an insane human, for this creature was a true fiend of Hell.

His eyes reddened with madness. In his throat rumbled a bestial growl, while

his hands curled like talons. He came at her as the personification of murder, teeth bared back inhumanly in evident readiness to rend her throat apart. She felt as though she were shriveling in withering horror, paralyzed, rooted to the spot. It all happened like a flash of lightning, from the instant that she struck him. His iron hard hands grabbed her arms, bruising flesh and bone. His bared fangs struck her throat with battering ram force. While her senses reeled in a maelstrom of intangible terrors and pain she heard shouting and running feet, and she felt other hands grasp her. Scuffling and physical combat buffeted her about, followed by a sudden calm.

Groggily, painfully, she focussed her eyes upon the scene before her. She still stood, though weakly, in the middle of the room, her clothes half torn from her body, the feverish warmth of blood on her neck and breast. She sobbed hysterically as she glanced about her.

The madman lay before her on the floor, stone dead. Three men were bent over him, studying him. They were dressed somewhat the same as he, but were slighter of build. When they looked up at her she saw that they were as capable of running berserk as the first one had been.

"How did you kill Larson?" they asked her. Their eyes roamed over her body. "You have no visible weapons."

"I—did not—kill him!" she stammered back. "Oh God, get me out of this place!" she groaned, sobbing in horror.

"This woman must be Lillian Germain," said one of them, getting to his feet. "It's that damned husband of hers. Yodi said they dis-rayed Germain at Santa Cruz, but he must have tricked the ray somehow. He's still alive! He killed Larson! He said he'd kill anybody who harmed her. You'd better call Yodi. He'll know what to do. And go get some bandages. The dame's bleeding." The little fiend looked at her closely. He reached out a hand to pluck at her tattered blouse, then changed his mind, somewhat fearfully.

Yes darling, I am with you, Lillian suddenly sensed the welcome thought of her husband. You are in mortal danger. I am sorry there is no time to enlighten you, but you have been brought into the lair of Earth's greatest enemy, which is equivalent to Hell itself. There is so little time. All I can do now, dearest, is to establish the

fact among them that to touch you is to die. But there is other work I must do after that. Until we can get you out of there with impunity I will have to leave you on your own for a short space of—

Lillian covered her face with her hands and cried out, "Oh, Stephen! Don't leave me! Don't leave me! For the love of God take me from this place!"

HAD she not been on the verge of shell shock before this whole new experience under ground, she might have faced her predicament with greater courage, but now there was little resilience left to her mind and spirit. Had it not been for Germain's message to her she would have collapsed completely.

Take it easy now, Germain warned her. These are madmen, all of them. Try not to antagonize them.

Just when one of the fiends had finished applying a light bandage to her, there stepped into the room a shriveled little ghoul in a monk's habit. His face was of an indefinable clayish complexion and texture, his bulbous eyes sickly blue and watery. These latter were fixed intently upon Lillian's eyes as he approached her.

"Yes," he answered one of the men who followed him. "This is Lillian Germain. I have seen her many times in the visiscreens. Her husband, no doubt, thinks that he can rob us of so delectable a fruit, but we may be able to fool him. Woman, you must follow me," he said. "Just remember that your loving husband cannot kill everybody around here. We have an unlimited number of slaves to work the ray machines, and they can kill you or shock you, with unimaginable pain, at will. So obey me!"

Lillian, dazedly trying to remember Germain's advice, followed the hideous dwarf-monk unwillingly. They walked through great stone passageways, some of them darker or brighter than others, many of them half filled with frightening shadows. She had the vague impression that these caves and corridors were practically endless. Exactly where she was, who these mad people were, or who had built these mighty caverns or why, she did not know, but she felt that whoever lived here now had usurped the ancient abode of a far superior type of people. For she saw at intervals great carvings or monuments

which revealed marvelous gigantic beings with god-like faces, filled with calm benevolence and wisdom. Another thing she sensed was an air of very extreme antiquity about everything, as though these great halls had been made in times so far past as to be beyond the range of imagination.

The little ghoul led her to a large opening which was a door on one side of the passage yet which looked like the facade of a great building. She walked up a number of large, age-worn steps with him before entering this place, followed by the other three men.

"This," explained Yodi, "is the most important spot either in or upon the Earth, for here rules ancient *Kar*, Emperor of all nations!"

She found herself in a gigantic foyer of some kind supported by a vast circle of gargantuan pillars, Mayan type columns composed of the solid rock. They were carved beautifully to represent, allegorically, the history of a wondrous race of people. The benevolently smiling faces of these silent statues fascinated her and made her wonder, in the midst of her apprehension, who these people might have been in ages past. The floor was a mosaic work in marble and crystals of rock. A huge fountain still splashed water in the center of the foyer.

Beyond, they entered the interior of a great subterranean palace. They crossed circular corridors and passed through great halls which were filled with wonderful machines and devilish looking people. And finally they arrived in a large throne room. Several men on the circular stairs leading to the throne turned and stared at her with unconcealed desire.

When she saw what was on the throne she stopped suddenly, as though someone had frozen her to the floor. There sat *Kar*, "Emperor of all nations," and King of the Ghouls, if there ever was one. He was a big man, perhaps it might be said that he was of abnormal or inhuman proportions, and he was dressed in a black monk's habit. His complexion was like clay and his flesh was lumpy. His eyes were bulbous and watery and red-rimmed like cups of blood. His whole face seemed to sag into wrinkles like that of an ancient St. Bernard dog, weighted down by the heaviness of his huge lower lip and gluttonous jowels. Some affliction caused him to breathe only

through his nose, which made it necessary for the latter to be always agape. Always it was half obscured by a drooping tongue, and his lower lip was apparently incessantly moist with drool.

Kar was incredibly ancient looking, as though he had been living for centuries on stimulants alone.

"Come here, my child," he said, in a deep wheezy voice. He lifted a great, chapped looking clayish hand and beckoned to her.

The room was so silent now that she could swear everyone was listening to her heart beat. She could only look back at that living nightmare on the throne, but she could not move.

Then Lillian was subjected to the ancient pain ray by a hidden operator. The jolt was not as powerful as the one which Germain had experienced in Santa Cruz, but it was enough to make her lose all color, to clench her fists until her nails pierced her palms, and then to scream until in one instant she became hoarse.

AS QUICKLY as the ray had struck her it was taken from her, and she staggered, almost falling. Her eyes only widened in terror as she looked up at the man on the throne, while she trembled from the after effects of the momentary torture. It had been a pain so great that she thought secretly they might be able to force her to do anything under the threat of it. That is, she *thought* that she thought secretly, but the telepathic ray sentinels could read her mind and transfer the thoughts to *Kar*.

"Now let us see," wheezed the latter. "For your stubbornness in not doing as I ordered you to do you have had to be taught a lesson by means of a pain ray treatment, a telaug ray sentinel was just killed by your husband, and no doubt your husband has been put to some pains in his efforts to make good his threats." The ugly ghoul raised his eyebrows. "I should think it far more economical and practical, in the long run, to be obedient. After all, your husband no doubt has other things to do in this world besides looking after you. Think how selfish you are, demanding his attention like this when he is probably needed elsewhere."

The fiend! came Germain's thought to Lillian. *He knows just where to strike you!*

But it's true, darling!—she thought back.



The ghoul on the throne beckoned
to the woman who stood waiting

You may love me, yes, but I told you you were too much of a god to worry about a mortal woman like me. I was terribly frightened and upset for a while because of all I've been through, but I'll face anything—even this Hell, itself—before being responsible for your being distracted from the much greater work for which you must be needed. Don't consider me, darling! Consider the world!

The ghoul on the throne took advantage of this psychic intercourse to communicate mentally over the telaug beam to his chief ray guard.

You've got to find a way of killing Germain!—he thought.

The mechs have not been set in twenty thousand years for such a high mentality as his—complained the ray man. He is above our range. Unfortunately, we don't know enough about these mechs to adjust them to the higher frequencies.

Then determine where he is and kill him with dis-ray!

That is difficult, since his thoughts are not being transmitted on a beam. He, himself, is here in disembodied form!

Then there is no way?

We're still trying.

I hold a high reward for the man who can find and destroy Germain's mind and body.

What reward is that?

His wife . . . naked as an egg!

Karthen grinned nauseatingly at Lillian. "Will you step forward?" he said.

Without a word, she did as she was told. However, on the first step of the dais she hesitated, overcome again by the horror of the man's countenance.

"Very well," he said. "Now I will tell you why you are here. First, as a hostage to put your husband on his good behaviour. Secondly, to pay back a few debts we owe him for some killing of our people in the Machu Pijchu area of Southern Peru, recently. Thirdly, we always need new blood in our veins to keep us from getting troglodytic. We should like to have you be one of us, my dear." He saw the revulsion in her face.

"Do not be deceived," he continued, "into believing that we are so bad or unprincipled. Here we live longer and learn

more than surface men. We also fear for our existence at their barbaric hands, because we feel that their blundering science may at any time stumble upon certain discoveries, such as atomic energy, for example, which may constitute a real threat to us. So we prepare ever to defend ourselves.

"You may also wonder why we prefer the caverns to the surface world. This is because the sun's rays are poisonous. They are the chief cause of your mortality on the surface. Down here we live by artificial rays which are more beneficial, although I must admit that the machines which produce such rays have deteriorated to the point where even their own emanations are becoming contaminated with radioactivity. Radioactivity is the Enemy Number One of all life. That is why the Elder Race sought out a home beyond the stars—in eternal darkness where the tides of integration are only beginning."

LILLIAN'S eyes were wide with puzzlement and wonderment, in spite of her predicament, and in spite of the hellish ugliness of Kar's face.

"There is much of knowledge which may be given to you here," he continued, "of ancient and wondrous things entirely beyond the ken of surface Man. So really your imprisonment here with us will not be as bad as you think—if you care to cooperate without our having to mould your mind under the influence of the ro mechs."

Don't ever let him convince you of his sincerity, warned Germain. *I've just examined his rotten soul, and I see there is no need for Satan here, Lil. You're looking at his number one stand in! This man has lived here in these caverns for five centuries and has knitted all the major cavern centers of Earth into a sort of Satanic empire, on a pattern established by various long-lived predecessors. By means of the ancient machinery left behind by a certain race of god-like men who once lived here in times beyond memory, Kar and his minions have succeeded in keeping very much alive the old legend of Hell. In fact, what they maintain here is the actual Pit. So don't ever—*

Stephen!—Lillian interrupted him with her own thought. If you love me, or if you cherish my own love for you, then please, in the name of Heaven, forget me!

Nicholas the First is a heavenly cherub beside this fiend, and if this is an example of what you have to fight, then you are not going to have any time for me! I can realize the nature of my personal sacrifice in this matter, darling, when I beg you to do this, but it is little enough to do in the face of what is threatening everybody at the hands of these ghouls. Please, in memory of our love, I beg you, dearest!

God bless you, Lil!—replied Germain. *If I come through this fight and really succeed in what I am going to try, then you will hear from me again. If not, nothing will matter to any of us. Just remember, Lil, if I'm a god, as you call me, I've only got one angel, and that's you! So long, sweetheart!*

"Stephen!" Lillian cried aloud, while Kar observed her with a knowing leer. The cry had been involuntary, like the sound which a cord makes when it snaps. For Lillian knew that her great guardian angel was gone. She was alone in Hell.

But she was puzzled by a momentary expression of consternation which passed over Kar's ugly face. She did not know that Germain was working on him.

Remember this, Emperor of an anthill! he warned, wrathfully. *You can be snuffed out just as easily as the rest. I spare you only because you are appointed by me as my wife's custodian. I delegate you, because you have the highest authority to protect her. So if anybody harms her it's your fault. I shall return, and when I do I'll look for her. If I do not find her, or if I do find her and she has been so much as scratched, you will die as surely as you are Satan's bastard son!*

I am leaving now, but you may be interested to know that if I succeed in what I am going to attempt, your already worthless carcass will acquire a negative value. There will be no escape, unless you have taken proper care of my wife. Until we meet again, my little Caesar!

Kar's clay-like complexion darkened to purple. His bloody eyes blazed in maniacal fury. His calloused giant's hands clenched and unclenched. Drool poured from his bloated lip and he seemed on the verge of apoplexy.

Steady, Kar!—came the augmented thought of his chief ray guard. The latter played a mild soporific beam on him to calm him down. We can't catch Germain's

thoughts on the telaug. What did he say? Kar stood up, trembling with anger, and sweating profusely. He looked so inhuman that Lillian hid her face from him.

He staggered like a drunkard from the dais, down the steps, shouting hoarsely to all present attendants, and to Yodi in particular.

"A declaration of war has been made!" he shouted. "Germain must be in Agarthi. It is there that we must strike! Yodi, how soon can your ships be ready?"

Yodi's bulbous eyes gleamed enthusiasm. "In one month!" he answered.

"It must be sooner!" demanded Kar. "Call my council together! The time has come, men! The sands of the ages have run out the glass! Earth's time is at hand! I, Kar, shall rise out of the Earth and smite and destroy with the fire of the disaray, and I shall possess the entire globe! I am done with patience and waiting!"

Thus, some fifty millions of dero were set in motion as never before, the object being destruction, as usual, but this time in catastrophic proportions. . . .

CHAPTER XII

In the Abyss

GERMAIN sat in a comfortable, reclining chair. His head had healed, showing several great vertical scars. His cranium, as an end result of Borg's experiment, had been increased almost to twice its normal size, but otherwise he was in perfect condition.

He sat in a spacious, simply furnished room on top of the great palace of Agarthi. From his position he could look out over a balcony at all the beautiful city of that peaceful cavern in the heart of the Himalayas.

Before him sat a very old man dressed in a blue robe, the back of which was emblazoned with the customary Sword of Agarthi, but which was topped by a mystic symbol, the ancient star and crescent. This man's name was Mandir, and he was close to one thousand years of age. He was Agarthi's chief mystic, aside, of course, from the King of the World, himself.

The King of the World was also present at this meeting. He, too, was incredibly old, but the preserving methods of Agarthian science had worked much more suc-

cessfully on him than they had on Mandir, who worked too hard and paid too little attention to his corporeal nature to give the doctors a chance. The King stood in the center of the room, listening to Germain and Mandir.

"Then you really feel," said Germain, "that to rescue my wife from Kar's hands by means of the teleportation apparatus would precipitate a war prematurely?"

"Yes," came Mandir's gentle, ancient voice. "You must realize that you have stirred the caverns with fear, because they have no known defense against you as they have against our various rays. They could even disrupt a teleportation beam, and the result might be a ghastly distortion of the person being transferred. But they cannot shield you out because they do not know how. Given proper strength and the right frequency, their fields could actually shield you out, but they are stupid in the face of variable factors. Be that as it may, they seem to recognize in you the symbolism of Agarthi, itself. When you anger them, you anger them against Agarthi. So, although it is certainly deeply regrettable that your wife is in their hands it is most advisable not to antagonize Kar at this time."

Germain thought for a long time, and in his secret thoughts he now felt guilty because of his last message to Kar. Then he said abruptly, "I must begin my journey at once, if possible."

The King of the World raised his eyebrows with new interest.

"Ah, then the deed of the prophecy involves a journey!" he remarked.

"Yes," said Germain. "I have asked for the presence of both of you to give me some information."

"You have only to ask," said the King.

Old Mandir licked his lips and leaned forward eagerly. At last he would hear what deed it was that could save the world, as the prophecy had indicated. Many there were in Agarthi who could have read Germain's mind, if he had allowed them to, but none had attempted to invade the private world of his thoughts. Agarthians were like that.

Germain looked at his two friends calmly and said, "*Where are the Elder Gods?*"

NO ONE answered him. Mandir's mouth opened slightly in amazement

and he looked wonderingly at the King. The latter's face had acquired suddenly the impassiveness of an Elder Race monolith. But his great eyes bored into Germain's.

At long last, he spoke. "You would contact the Elder Race?"

"Yes," said German. "Why not?"

The King sighed. He made a sign to Mandir to explain, which the latter did, almost disappointedly.

"In the first place," he began, slowly, "the Elder Race is composed of entities so superior to us that our appealing to them would be similar to the appeal of a dog to a man."

"Many a benevolent master has been moved by the entreaties of his dog," retorted Germain, somewhat displeased with Mandir's simile.

"True, because a dog's wants are fundamental and may be appreciated by higher intellects, but on the other hand—"

"What is more fundamental," interrupted Germain again, "than the survival of Humanity?"

"Well," smiled Mandir, "granting the possibility of making an appeal, which I still doubt, you must consider that the Elder Race has by this time achieved absolute immortality. For some of its number to return into this galaxy again it would mean subjection to relative mortality, because they would become contaminated with radioactivity in more or less degree, wherever the light rays of the older stars might reach them. This would be a great sacrifice, as one of those great beings is worth half of an Earthly nation in his wisdom and ability."

"We must not take too humble an attitude," admonished Germain. "For it must be remembered that we all represent potential Elders. If Earth's surface humanity is destroyed by the deros, the possibilities of a new future Elder Race will cease to exist. So I think that helping us out is worth the time and trouble of a goodly number of the present Elder Race."

"Moreover, ultimate wisdom is imperfect if not applicable. After all, selfishness is not a part of godliness. The sacred responsibility of a god, it seems to me, is to use his powers to the advantage of lesser beings."

"Well spoken!" commented the King of the World, smiling his approval. "Perhaps

you would be a good ambassador for Agarthi, Germain, but there are, beyond these considerations, further difficulties."

"The chief physical difficulty," broke in Mandir, "is distance."

"I am not thinking of one of your interstellar ships," put in Germain.

"I know. You are an adept at astral projection. But it is in this field that I can give you the most authoritative advice. Such projection is also limited."

"By what? The speed of light? I think not!"

"No, it is not that. It is an almost inexplicable thing. It is the danger of having to go so swiftly that one loses his points of reference. You may become *lost*!"

Germain was somewhat impressed by this. The aspect of his astral self wandering about in Infinity without a corporeal anchorage was not encouraging. But he had foreseen such dangers.

"Where," he repeated, slowly, "are the Elder Gods?"

"They live in the Darkness of Beginning, in the Distant Places," said the King of the World. "Such a journey, if possible, would endanger sanity, itself, even for *your* mind. Then, too, there are unknown laws of velocity to which even the astral body is subject."

"I'll chance that," said Germain. "But where are the 'Distant Places'; where is the 'Darkness of Beginning'?"

"Beyond the stars," said Mandir.

"Beyond the—?" Germain looked startled. "But I thought—"

"Your thought is correct. In the Finite there is an infinitude of units. The stars are endless, when taken in all, but each unit of the endless whole is a galaxy, a vast universe, a molecule. The distances between the galactic masses, or the universes, is unthinkable to our minds. The Elder Gods live somewhere on dark worlds outside any existent universe, in the dark abyss of Endlessness and Nothing."

"If I were to contact the Elder Race and convince some of their number to come to our aid, could they come to us *physically*, in time help?" asked Germain. "That is, do they have any way of counteracting the laws of Relativity in their flight in order to surpass the speed of light physically? I'm thinking of Lorentz-Fitzgerald contraction and mass increase with velocity. Also inertia. If they could over-

come that—"

"We do not know," replied the King of the World. "What you contemplate seems all impossible, even to me, but it is in the prophecy that you will do it. I suggest you explain how we can help you."

"By stimulator ray," answered Germain. "And by taking good care of my body while I am absent."

"This can be done," said the King.

"Then I start tonight!"

FROM Panama to Havana, the armies and allies of Nicholas the First were winning the greatest war ever fought in recorded history, yet it all meant less than any had ever meant before, because a more powerful ruler was already deploying his forces underneath the surface of Earth to conquer that which was to fall to the conqueror.

But while all this was transpiring, an astral entity swept out onto the road of stars, bent upon the salvation of Humanity, itself. This was Germain, soaring much farther than he had ever ventured previously, and with a thought-augmented velocity that far surpassed light. When he traversed the dreaded line, which was the universal speed limit, he could no longer detect the presence of the stars. All he could do was plunge into the unknown, speed-induced blackness, not even sure that he was still a part of the same Space-Time continuum he had known. Already he was utterly lost, and he realized that his only salvation was a contact with the Elder Gods.

As he progressed in lonely emptiness he could not help but contemplate the immensity of the Cosmos and Man's limited perspective of it. Before surpassing light's velocity he had seen the flaming white cauldron of Creation and Destruction, suns aborning and waning without end, huge nebulae which could span a hundred solar systems, the vast plethora of light and matter which signified cosmic creation, and the black nebulae, funeral shrouds of half a universe of ancient suns. The sight and the experience almost stunned his consciousness and sent him reeling, spiritually blinded, into the Limbo of the Lost.

Here he had seen the great fundamental of life—energy which is vibration, vibration which is a surge between extremes. Upon twin opposites was the Cosmos built,

and between them surged Existence, like the pendulum of a giant clock: Construction and Destruction; Light and Darkness; Matter and Void; Heat and Cold; Yesterday and Tomorrow; Infinity and Zero; Love and Hate; Peace and War; Riches and Poverty; Health and Sickness; Joy and Sorrow; Man and Woman; Life and Death. That was the secret of existence! Without the surge and striving between the two there would be no comparison, no relativeness, nothing! Conformity with this law of surge and strife was well-being, happiness. Non-conformity meant atrophy and death. The greater the surge between extremes, the greater the falls into the negative opposites, the greater the rise toward the pinnacles of positive ecstasy. Therefore the answer to all happiness and to all life was *striving*, even though fundamental law pointed out that the inevitable end was to fall once more, only to begin again. The continuity of the action was Eternity, the Infinite. The inevitability of the repeated cycle was the Finite. Finite and Infinite were one. . . .

WHITHER MOVES THE THINKER OF THE ULTIMATE FUNDAMENTAL?

Germain was startled. His headlong acceleration ceased. His being had been almost obliterated by the vast power of the thought which had been cast at him. He slowed down, desperately, but he was moving far too fast to see the stars, if, indeed, he were still within the confines of the universe.

I seek that Elder Race of gods which left the planet known to them as Lemuria, he thought back, as powerfully as he could.

Was this his contact? Or had he stumbled upon alien entities of vast power who would act against him? There was no way of judging time in this endlessness. The ponderous pendulum of Eternity seemed to swing its course before an answer came.

US YOU HAVE FOUND BY YOUR COURAGE AND OUR WILLING GUIDANCE. YOU WOULD PETITION OUR HELP, AND WE READ IN YOUR SOUL THE REASON WHY.

Germain felt relieved that not much time would have to be wasted on explana-

tions. They were aware of everything he had to tell them or ask them.

Then I have only to reiterate the question which I came to ask, he thought. Can you, and will you, help us?

Suddenly, he knew that he had slowed down within the limits of light's velocity. He saw, not stars, but *universes*. . . .

THE universes took the place of the firmament. They were, however, but ghostly lanterns hung on startling darkness, glimmering far away, as though light, itself, were dissipated in distance. This, at last, was the Darkness of Beginning. These incalculable interstices of endlessness were the soul-dizzying Distant Places in which lived the Elder Gods. Far ahead in blackness he was aware of a great dark world, lightless, motionless. *Home of the gods!* To this place he had just directed a question upon which hung the fate of four billion mortal beings, now lost on an invisible speck of matter behind a trillion, trillion stars. He hated himself for recognizing the comparative insignificance of his mission.

Yet, a great god-mind deigned to answer his stated question:

YES, it said, WE CAN, AND WE SHALL. . . . RETURN WHENCE YOU CAME, TERRESTRIAL. OUR LAWS FORBID THE ENTRANCE OF STRANGERS AND LOWER INTELLECTS HERE. RETURN, AND IF YOU ARE LOST ON THE STAR ROAD WE SHALL GUIDE YOU, EVEN AS WE TRAVEL WITH YOU. . . .

Germain, as he altered his astral course in an attempt to turn back, thought he heard the legendary music of the spheres accompanying a heavenly choir of giant angels. But it was only the music of elation coming from within his being. . . .

CHAPTER XIII

The Eve of Armageddon

THE President of the United States spoke impatiently to his appointment secretary. "I can't see the man, no matter who he is!" he exclaimed, looking distractedly at a neat little card on his crowded desk blotter.

The card said: "Major Michael Kent,

representing Stephen Germain."

The tired President had a fond recollection of Germain. Although he could never, as a politician, openly subscribe to some of Germain's outspoken principles, nevertheless he had admired and envied the fellow's sharp social vision and his daring self-expression.

"Major Kent has been trying desperately to see you and everybody else for the past three days," explained the gray-haired male secretary. "He says it is imperative that you see him at once—a matter of world-shaking proportions, evidently. I explained to him of course that—"

"That everybody comes shaking the world at me, eh?" put in the president. "Well, it is shaking, we can't deny that. Tell me, whatever happened to this fellow Germain? Oh yes, yes, I remember. Some strange business about hypnotizing the Russians at Santa Cruz. An amazing thing that, almost unbelievable."

"Germain was reported as missing after that," said the secretary, "but Major Kent insists he is very much alive and that he has been in communication with him."

"Is that so! All right, then, let me see Major Kent. I'll count this interview as today's fifteen minute recess." He checked the recess off the days calendar and sat back in his chair, sleepless eyes closed, to wait for Kent.

Kent's furlough did not seem to be doing him much good. He had lost weight and anyone who looked at him could tell by his weary eyes that he had passed some sleepless nights lately.

He came up to the president's desk and saluted, however, with his one good arm, in best army tradition. "Thank you, Mr. President," he said. "You'll not regret this. I am sorry to have to appear melodramatic, but I bring a message to you from a place called Agarathi, and—"

"Won't you be seated?" said the president. "I called you in to ask you about Captain Germain. You say he is alive?"

"Yes, very much so," replied Kent, not accepting the offer to take a seat. He made a habitual gesture in an attempt to crack his knuckles, but this was no longer possible because of his withered hand, a result of Pavlovich's deathray.

"Look, Mr. President," he said nervously, "I'm sorry to be abrupt, but it's taken me three days to get to you. What



Far ahead in the blackness he was aware
of a dark world . . . HOME OF THE GODS!

is involved here probably took many tens of thousands of years to happen, and I've got only minutes to explain it. The points are these:

"Number One:—Things are going bad for Americans in the war, because it now looks definitely like the Russians are going to take over.

"Number Two:—If the Russians do take over it won't do *them* any good because a much more powerful enemy, unknown to you but backed by the most superior weapons on Earth, is going to overthrow Nicholas the First, even before the final phase of the war.

"Number Three:—If this latter enemy takes over, it will be curtains for Civilization. There would be nothing we could do about it. Their weapons could snuff us out before we knew what it was all about. This attack may occur at any moment.

"Number Four:—There is a place near Tibet called Agarthi. There the Agarthians have weapons and the disposition to

help us, but they are too few to guarantee success.

"Number Five:—Stephen Germain has contacted someone who can help us out, but that someone must first talk to the entire world, to get them prepared for the biggest shakeup they've ever seen. This person is scheduled to go on the air from a radio television station in Agarthi at midnight tonight, Central Standard Time. What this person has to say will be the most important thing this world has ever heard in its history. As many people as possible should be listening in. It is Stephen Germain's personal request that you arrange a world wide hook-up, throughout what's left of the Democratic Nations, and to request emergency cooperation of Nicholas the First to allow the Russian World State nations to listen also. . ."

"Wait a minute!" protested the president. "What kind of crazy folderol is this? Are you ill, Major Kent?" He rang for his secretary. "Major Kent," he said, standing up, impatiently, as the secretary

hurried in, "I am a practical and a busy man. What you say is incredible and a bit too much for me to swallow. Good day!"

Several plainclothesmen hurried in to accompany Kent out. Kent turned back toward the president to have one last word.

"Sir, I am sorry as the devil to have caused a scene here, but I have only been following orders."

"Whose orders?" shouted the president, angered.

"Of Stephen Germain!" replied Kent.

"Since when has he become your commanding officer?" retorted the president. "May I remind you, Major Kent, that this nation is still at war, and that your activities are at present subject to the long established regulations of the United States Army?"

Kent insisted, "You've got to make that radio television hook-up tonight or this will be the saddest day of your life!"

"Take him away!" said the president.

BUT that night, at nine P.M., the president received confirmation from the office of International Telesor Communications that an unknown station in Inner Mongolia was insisting on the same thing. The station gave its location as Agarthi. G-men got Kent and began taking stock of the whole situation again, but everything they got out of their charge was so incredible that they finally decided he was shell-shocked.

Still, the president was bothered. Finally, he called his special aide on Communications. "Arrange," he said, "for the requested hook-up, as universal as we can make it. If we don't like what's being said we can censor it over here. If the thing's a fake, I'll utilize the time with a message of my own I've prepared on the war for my Fireside program. But you know I've been struck by this thing, somehow, more than I've cared to admit. I keep thinking of the strange incident at Santa Cruz. Now this Agarthi station appears on the air, corroborating at least a part of Kent's incredible story. I can't get out of my head, either, that famous Shaver mystery that occupied everybody's time so much a number of years ago. I've always wondered about that thing, and I remember something about this Agarthi

place. It's all like a mad dream, on the one hand, but— Well, I know it's a risk of my own political neck, but there's something about this whole thing that strikes me squarely between the eyes. So arrange all the hook-ups you can and see how well the enemy will cooperate, at least the undergrounds, even if only out of curiosity."

The Communications aide whistled. "That's a large order, Mr. President, but we'll try our best. It's your baby and it's your neck!"

"Nicholas has a noose around it, anyway," muttered the president to himself. He sat down at his desk, synchronizing his watch with his desk clock. "Three more hours," he mused, "in which to enjoy my neck. Still, in these last days of American independence one might as will give anything a try. . . ."

IF THE U. S. president could have seen what was going on just three miles underneath the capital building he might have begged Agarthi to start talking as soon as possible. And this thing that was going on below was merely a repetition of thousands of activities in similar centers located throughout the world. For the caverns of the ancients had been swiftly but strongly made, and they stretched in an interminable network almost everywhere.

Here beneath Chicago were great halls and chambers which had been enlarged by dis-ray machines in the past few decades; owing to the lucrative business which the deros were able to carry on here. They acquired slaves and provisions from the surface and were able to trade with such articles far and wide in the cavernous catacombs which led away from that center of activities.

And wherever the leading deros gathered, so did the ancient machines and weapons, in order to protect their holdings from competing centers, which, in spite of Kar's dictatorial unification, were liable to overthrow enforced fidelity in favor of an attractive gamble. Lined up under Chicago's surface arsenals and national military headquarters were huge dis-rays run by atomic energy, which latter was derived from hydrogen, split out of ordinary water from Lake Michigan, the basic fuel. These dissociator rays could cause matter to collapse into a nebulous mass of basic matter. They were powerful enough to dissolve Chicago

by merely sweeping it like a broom. By shortening the effective distance of the beams they could open great pits in the Earth into which skyscrapers could fall and be buried. Or they could lengthen the effective distance and dissolve cubic miles of atmosphere, thus creating hurricanes. They also had atomic heatrays which could have raised Lake Michigan to the boiling point within a few days' time. And of course there were the terrible pain rays, and rays which could induce fever and produce most of the ailments and plagues in man which are attributable to the legendary unfilterable viruses, rays which could cause visions, nightmares and madness.

In other, greater caverns were gathering a number of marvelous, ancient ships of the void, giant wonder vessels built by the Elder Race when it was still young, still capable of entering the airless wilderness of interplanetary space, with loads of ray machinery and operators.

These could fly in or out of Earth's atmosphere, swifter than any bullet devised by man—even swifter than his fastest atom-bomb rockets. And just one of these ships would prove invincible to any and all terrestrial cities. But the dero had fully a hundred of them. Each one was equivalent in effective power and deadliness to any one of Earth's surface navies. These were being prepared principally for the grand attack on Agarthi. The deros were prepared to spend ninety percent of that fleet, if necessary, to destroy Agarthi, its age-old enemy, and they were even quite confident that not fifty percent would be annihilated by Agarthi's giant dis-ray batteries before resistance would be burned through and smashed.

Most of the dero world was united by a mutual pact of organized distrust and fear, under Kar's typical domination. At his bidding, the dero attack would be unleashed. So sure was Kar of final triumph that he had arranged a special banquet, the festivities of which were to be dedicated to the celebration of dero victory and world mastery.

Delegates from all the principal caverns of the Earth had arrived, and it was expedient for Kar to impress them all for the sake of subterranean solidarity. So the banquet was probably one of the greatest known in all of dero history. It was the

eve of the attack.

The banquet cavern was one which might have been reached by blasting through certain ancient concealed entrances as yet unfound by surface explorers in a certain well-known giant American cavern. It was a natural cavern, chosen especially for the occasion, because it was a quarter of a mile in length and half as wide and high. It had often been used for various important dero purposes, so it was well appointed with light, air, warmth, and ray machines.

Fully one thousand feet stretched the banquet table. It was fifty feet wide, as though it were the proscenium of the greatest theatre ever built. For days and weeks the crowds and provisions had gathered. Wines and sharper liquors, brought from everywhere, from Upsala to Mendoza, rare *hors d'oeuvres* from Mosul, Constantinople, Moscow, Paris, New Orleans, whole barbecued beef and pork, roasted fowl and sweetmeats from the western United States—and slaves.

There was an army of slaves, of all colors, races, sizes, shapes and purposes. Musicians, dancers, wrestlers, swordsmen, headsmen, and chosen and manufactured harlots.

Fully a thousand of the important figures of the dero world sat at that table, while as many slaves served them and bemused them. Weird, erotic music, accompanied by much naked dancing, drunken exhibitions of debauchery, and general gluttony—these were the keynotes of the celebration.

KAR sat at a raised table at one end of the main table, in feudalistic fashion, accompanied by some of the highest chiefs of the dero world, some, in fact, who had been his rivals for power but who feared him enough to side with him in this great venture which he had planned.

Rangus Melchor, particularly, had been a threatening competitor to Kar, and he still brought with him his old air of defiance. An ugly brute of a man with a great, fat face and a head matted with black curls, he bore the stamp of the cruel caesars of ancient times. His bloody tactics had made him the master of all the caverns of central Europe, which were the best organized of all. He sat at Kar's left.

Melchor had come on Kar's order, more out of envious curiosity than out of a sense

of allegiance. He had come mostly to seek out a flaw in Kar, whereby he might get a wedge into him and eventually break him, usurping his throne for himself. And Melchor found at least a minor flaw to start on. He had found something which Kar secretly feared—Stephen Germain. The story of Germain had gone swiftly through the caves, and all who came to the feast had heard about Lillian, and how Kar seemed to be afraid to harm her for fear of death at Germain's hands. Here, indeed, was a worthy theme for Melchor's fertile and versatile mind. There was one basic principle which he could use as a lethal weapon: In the caves, the fittest survived; to be weak was fatal.

As he sat beside the monstrous, drooling Kar his beady eyes searched through the vast crowd of revelers and slaves who might be American women. There were hundreds of these latter, of course, mostly acting under the coercion of the ray operators who ran the ro machines which molded their wills to conform to that of the operator, but among all these there seemed to be no *particular* woman.

"Where," he said to Kar, "is the famous American woman, Lillian Germain? I hear she is a rare plum. Are you saving her for plucking later?" Here he pointed significantly to a girl who had just been fiendishly tortured and throw bodily into a great fountain of white wine in the center of the table. As she struggled in the liquid, her life's blood, pouring from hundreds of mortal cuts, deepened its color, while the revelers filled their glasses from overflow spouts around the fountain's lip.

"She will not be seen here tonight," replied Kar, in a heavy tone. His sickly, bloody eyes gazed enraptured upon the unfortunate girl who was dying in the wine fountain.

"Why not?" demanded Melchor.

"Because I said so," replied Kar.

"Ho! Ho!" laughed Melchor. "Afraid of Germain!"

Kar looked at him like gray death. "I fear no man," he said, hollowly.

"Then why not bring her out?" insisted Melchor. "I'd like to see her. Besides, if harm should come to her at my hands I'm the one who would reap the punishment, if any, and not you."

By this time, many another dero chief was listening, and Kar clenched his great

hands in vexation. He took another long swallow of a fiery Persian wine which was his favorite. "All right!" he said. "Kar will give you a treat!" A daring gamble was being planned in his mind. He had to keep up his own front here, yet he was practical enough to realize that Germain was a real threat to him. He called mentally to his ray guard.

Have her brought—he thought to the operator of the telaug—suitably prepared, but covered with at least a single dancing veil. Make her dance with the ro mech and pump this thought constantly into her mind. Her only salvation tonight is to smile and laugh. Everybody around her she will consider as beautiful and worthy of her caresses. But do not have her come near this table! I don't want Melchor's paws on her. He might go too far.

And so it was that at that stage of developments when everybody was drifting into complete abandonment to their degenerate senses and blood-lusts, Lillian was brought forward among them. Under the strong influence of the ro mech her will was not her own. She walked, talked and laughed as one hypnotized. Her milk white skin was not easily obscured by the one black veil which was supposed to conceal her body from the feasters. Instead, as she placed her shapely bare feet on the bloodied table and began to dance slowly up the gamut of revelers, the veil only enhanced her tall, smooth female charms to the point where all else was disregarded by her audience.

Melchor forgot even his food, which was unusual. Instead, he feasted his eyes with uninhibited passion and a growing fever of desire. Never had he seen such a raven cloud of hair! And those flashing emeralds that were her eyes! What juicy cherries—those luscious lips! Kar saw the other's hand tremble as he wiped his mouth, eyes never leaving the dancing figure for a second. And he frowned in mortified consternation as she danced more swiftly in their direction.

Keep her away from here!—he ordered to his ray operator.

As Lillian began to retrace her steps, Melchor stood up drunkenly and shouted, "Come here, you wench!"

"Sit down, Melchor," said Kar. "She'll be here in time. Have another drink and enjoy yourself!"

But Melchor had seen a woman which inspired all the maniacal demon lust of which he was capable. He got onto his chair and stepped onto the table, while Kar half rose to his feet. But the latter could not protest, because this was an old tradition.

Someone was supposed to pluck the plum and devour it. It was an expected part of the entertainment. In fact, it looked good from the cavern's political standpoint, especially. Kar was defying Germain and giving Melchor, his greatest rival, the choicest prize of the evening. But in a way, everybody could participate. It was an ancient, much cherished game.

KAR sat back in his chair, great beads of sweat on his slightly greening face. It's out of my hands now—he told his ray. I *tried* to save her, damn it!

Lillian, her face glowing with radiant life under the stim-ray, whirled and dipped and smiled in a maddening dance. The feasters devoured her. They cheered at the sight of Melchor on the table top. One offered his sword.

"Slice her tenderly with this!" the maniac shouted, hysterically. "And then the fountain!" He pointed to the wine fountain where the other girl now floated, dead.

"Yeah, the fountain!" cried the crowd. "Cut her well so that all may drink her!"

First, they knew, Melchor would take her, to the entertainment of all, but so depraved was the crowd that blood-lust was even stronger than the other. Melchor did not take the sword. He knocked it aside and said, "Later!"

When he was almost upon her, Lillian's own consciousness awoke to reality. This, too, was a part of the ancient procedure. Now that Kar had given up, the ray operator followed the dictates of tradition. He withdrew the remote control and left the victim on her own. The mental anguish was always more enjoyable to others, that way.

Lillian was at once aware of her near nakedness, and she clung to her veil in abject mortification, mingled with incredulous amazement and abject horror. From Kar's pulpy face and the dead girl in the fountain to Melchor's obvious approach her eyes flew, taking in her situation in one brief moment.

Her first impulse was to scream, but

then she suddenly remembered that she had promised herself to face Hell, even unto death, before flinching. She had known she would end in this place, so the sooner the better. After he was done with her they would put the sword to her, which was what she would want anyway.

Rangus Melchor was the object of all eyes as he reached Lillian and tore the veil from her body. Even Kar leaned forward at the sight of her which was like a living white flame. Surprisingly, her head was up, eyes glaring proud defiance at them all. Melchor, nothing daunted, drew her greedily into his fat arms. . . .

BLAM!

The crowd was on its feet, a thousand mouths dropping agape. For Lillian had disappeared in thin air, and the passionate Melchor now lay pinned squarely to the table by a giant, golden sword!

Kar's clayish face turned pale for the first time in five centuries. "The Sword of Agarthi!" he exclaimed.

Deathly silence pervaded the cavern. Then, all eyes turned toward their leader. Kar's clayish color returned. His eyes began to blaze with the old fire of rage. His shapeless mouth struggled into an exultant grin.

"They've asked for it!" he shouted. "Let the attack begin! Get to your posts and communication points! All chiefs take over your commands! Your ships must leave for Agarthi within the hour! Before the sun rises, Agarthi must be blasted from the Earth! Then turn upon all the nations and destroy them. Go!"

At his commands, pandemonium broke loose. The cave emptied so fast that no one noticed what direction Kar finally took. None there were alive, in fact, who knew of his secret exist. . . .

CHAPTER XIV

When a God Spoke

WHEN Lillian Germain materialized in the receiving chamber of the teletransporter at Agarthi, a voluminous cloak was immediately placed about her by several Agarthian scientists and she was given a pair of warm, fur-lined slippers. But she had no eyes for those things, no time to think of where she was, for there before her, his head's size camouflaged by

a thin turban, was her husband.

The transition from Hell to this comparative Heaven broken down all inhibitions. She ran to him without the slightest ceremony and flung herself crying into his arms.

Neither the scientists nor the gathered Agarthian citizens denied them privacy at that moment. They all turned to the television screens and watched the scenes transpiring in the dero caverns. A great tense-ness and expectancy was in the air.

"My darling!" said Germain. "Sometimes it seems that life crawls through a hole too narrow for the broad shoulders of Hope. This moment is something I had long since given up as an impossibility. But here you are, like a faithful, homing angel. Thank God, Lil! All I can say is thank God! Yes, in spite of the actual existence of the lesser gods, such things as this make me revere a greater, single entity."

Lillian knew she should be asking a million questions, but she was content to merely relax in his arms, sobbing helplessly.

"This is Agarthi," said Germain. "It is the home of a wonderful people who are the feared enemies of the cave dero. We have all just declared war on the caves, Lil. Do you know what that means?"

"But—" Lillian began to shake herself mentally back into reality. "How can this small place stand up against them? They are many and possess endless numbers of weapons."

Germain smiled proudly, and in his eyes she saw a starry sort of inspiration, as though he had just returned from the gates of Eternity. He led her up a pathway, through a rocky corridor.

"I would not trouble you now, sweetheart," he said, "were it not for the fact that something is about to happen which is more important than anything that ever happened before."

When they had reached a certain level, they turned into another passage and seemed to head straight for an opening in the side of the mountain. Soon they came into a room which looked like the bridge of a ship. Several people were there, gathered around a television apparatus. Germain led Lillian to a great stone balcony.

At first she drew back, involuntarily. Below the balcony was sheer nothingness. It was night, and the Earth far below was

not visible. Above blazed a dazzling stellar spectacle—the clear night sky of the Himalayas.

"Look!" said Germain, and he pointed into the darkness below.

Gradually, she began to make out what seemed to be the lights of a vast city. It seemed to be built on a great mound which stretched several miles in either direction.

"What is it?" she asked.

"It is not a city," said Germain. "It is a *ship*."

"A ship!" she exclaimed. "But that thing is miles—"

"Yes," said Germain. "Four miles long! It is a great battleship of the Elder Race, returned out of the Distant Places to give us a hand. And there's a whole armada of them floating upstairs, about one thousand miles out. Boy! Are the dero in for some surprises tonight! And is the *world*! Tonight, my darling, in about one minute from now, you are going to hear and see a *god*, right there on that television!"

"A god?"

"Yes! Those great beings in that ship out there are benevolent gods, so superior to us that we are specifically, only apes beside them. They are fully as godly as any ancient Zeus or Wotan or Thor, and their 'lightning bolts' will prove it!"

"But how did they come here?" queried Lillian, overcome with amazement.

Germain looked pleased with himself. "I recruited them," he said. "They're great fellows—scare me to death every time I communicate with them."

"Scare *you*? Oh, Stephen, what's going on is too much for a person to grasp!"

"It's Armageddon," said Germain, "with a world-wide television hook-up. Even the Russians are going to see it."

"Shhh!" admonished the television operator as the receiver came to life.

"This is it!" said Germain, drawing Lillian closer to him. . . .

IN CHICAGO, the President of the United States sat in the Senate Chamber, surrounded by a hundred men of state and as many news reporters. There, too, in a ring of G-men, sat Michael Kent, who watched keenly the developments on a giant television screen which had been hooked up for the emergency. It was midnight, but eighty percent of those

present were quite skeptical about the validity of the place called Agarthi. They expected to witness a colossal farce.

A mysterious announcer, who would not show his face, began the ceremonies.

"People of the world!" he said. "People of all Earthly nations, of all races and creeds! The time of which legend and prophecy speaks has arrived! A thousand aged prophecies will be seen to prove themselves this night! This moment is second only to Judgment Day, itself, for you are on the verge of Armageddon!"

"Oh my gawd!" snorted one U.S. senator. "It's one of *those* outfits! Jesus! Throw the guy a quarter and turn him off!"

"America," continued the announcer, "the one honest land where the doctrine of individual liberty has been adhered to, finds itself in this hour upon the verge of subjugation to Nicholas the First. But where is Nicholas the First?"

Reporters now pricked up their ears. The senator who had first protested looked disgruntledly at the representative from Louisiana. The latter raised bushy eyebrows, questioningly.

"Nicholas the First," said the announcer, "has fled! He has deserted his own men. At this moment he is traveling in a ship of space, out into the dreaded cold of the void—to escape *what?*"

The voice sounded somehow too authoritative, too confidently informed, to really laugh at. Reporters began to scribble wildly. G-men looked at Kent, remembered his story, and muttered, "Well, I'll be damned!"

The president shushed his startled companions to silence and listened intently.

"What is Nicholas the First afraid of?" cried the voice of the announcer. "He is afraid of the *dero*! And what are the *dero*? To explain them simply, they are the living demons of Hell. Tonight they are going to attack the surface world. But first they attack Agarthi.

"Agarthi for ages has been the last hope for Mankind. The men of Agarthi alone have stood against the *dero* and held them in check, but now, without certain special help from an outside source, even we of Agarthi could be overcome by the great forces which the *dero* have swiftly prepared. That help consist of god-men of the Elder Race which first built Paradise on Earth. These benevolent beings come

from the unthinkable depths of extragalactic space at a time when we would all be utterly destroyed without their help. You should thank the God you worship—that these Elders have condescended to take pity on us, because otherwise the *dero* would wipe us out.

"We have information that the *dero* plan to attack Agarthi in approximately one hour. Much of this battle you may be able to witness. But in the meantime, it is my incalculable honor to introduce to the world no less a personage than Rama Khan Tor, who is as great a living god as was Zeus, himself. This will be self-evident! Bless the world with your voice, o Rama Khan Tor!"

The President of the United States stared as one petrified at the screen, as did all the senators. The reporters, a hardier group where great news was concerned, continued to scribble madly, cigarettes and cigars long since dropped on the floor and forgotten. Photographers hysterically rattled their equipment to get it in readiness. Kent leaned slightly forward, eyes intent upon the televisior screen.

BEFORE sound there came a vision. Softly and slowly it swirled into shape. And soon the eyes of the world looked upon the vast, colorless face of Rama Khan Tor. It was the living face of a giant Buddha, eyes large, deep, and infinitely wise. Such miraculous strength was there in that perfect countenance that no mortal man could doubt that this was a being far superior to the ordinary *homo sapiens*. It simply had to belong to a god, that beautiful, terrible giant's face. But if the face did, even more so the voice!

It was a voice which spoke an ancient mother language which all listeners throughout the world seemed to be capable of understanding. But later it was suspected that some mass telepathy was also connected with that miracle. It was a voice which permitted no doubt. Its very sound penetrated to the spirit and commanded belief. . . .

"TERRESTRIALS," said the god-voice, with infinite calm, "YOU HAVE LEARNED TOO SLOWLY AND THEREFORE YOU DESERVE THE ANNIHILATION WHICH THE DERO PLAN TO ADMINISTER THIS NIGHT. YET WE OF THE ELDER RACE

TOOK PITY ON YOU AND HAVE MOVED TO SAVE YOU. AFTER ONCE DOING THIS THING WE SHALL NEVER REPEAT IT. ONCE YOU ARE OUT OF DANGER YOUR DESTINY WILL BE IN YOUR OWN HANDS, EXCEPT THAT WE SHALL LEAVE ONE HERE IN CHARGE WHO WILL GUIDE YOU. EVEN SO, WHETHER YOU DIE BY THE END RESULT OF YOUR OWN IGNORANCE, STUBBORNNESS AND VANITY OR WHETHER YOU LIVE TO BECOME ELDERS SUCH AS OURSELVES WILL DEPEND LARGELY ON YOUR FUTURE SELF-CONDUCT.

"ADMONITIONS TO YOU TERRESTRIALS ARE NOT SUFFICIENT TO GUIDE YOU. YOU MUST BE SHOWN THE WAY. THEREFORE IT IS THIS: VANITY IS IGNORANCE; HUMBLeness IS WISDOM. FOR THIS REASON IT WAS ONCE SAID BY A GREAT GOD-SPIRIT WHO VISITED YOU TWO MILLENIUMS AGO: *THE MEEK SHALL INHERIT THE EARTH*. ONLY THROUGH A HUMBLE APPROACH TO INFINITE KNOWLEDGE OF ALL THINGS IN SPACE AND TIME CAN YOU PROGRESS. DO NOT, EVER AGAIN, ATTEMPT TO REDUCE THE MIGHTY UNKNOWN DOWN TO THE STATURE OF YOUR FINITE AND ERRONEOUS UNDERSTANDING. DO NOT ATTEMPT IN VANITY TO REDUCE THE COSMOS, FOR THIS IS AN IMPOSSIBILITY; IT IS ONLY SELF DECEPTION. INSTEAD, OPEN YOUR MINDS AND SPIRIT IN HUMBLeness AND YOU WILL BECOME WISE. THE SALVATION OF YOUR KIND IS IN BENEVOLENT WISDOM.

"FROM THIS DAY FORWARD, TERRESTRIAL MAN MUST ENTER INTO THE THIRD BASIC STAGE OF HIS DEVELOPMENT, OR ELSE IT WILL BE FOREVER TOO LATE. FOR ALMOST A MILLION YEARS, *HOMO SAPIENS* WAS *ANIMAL*, LIVING FROM DAY TO DAY EVEN AS THE LOWLIEST AMOEBA OR LICHEN, MERELY SEEKING HIS FOOD, HIS DRINK, HIS REST AND WARMTH AND PROCREATION. EVEN IN THE SECOND STAGE, WHEN HE BEGAN TO THINK IN THE *ABSTRACT*, WHEN HE BECAME A TRUE MAN

AND BUILDED FOR HIMSELF MIGHTY CIVILIZATIONS, REACHING EVEN INTO THE ELECTRONIC AND ATOMIC ERAS, HE STILL DEVOTED THE MAJOR PORTION OF HIS TIME AND ENERGY TO THE ACQUISITION OF THE PRIME NECESSITIES: FOOD, CLOTHING, SHELTER, PROCREATION. THERE WAS STILL NO GRACEFUL PERIOD OF LEISURE FOR UNTRAMMELED THOUGHT. IN IGNORANCE HE STILL SHORTENED HIS LIFE WITH FAULTY DIET AND DRUGS, WITH ACCELERATED LIVING AND OPEN EXPOSURE TO THE SUN'S DETRIMENTAL RAYS AND TO THE RADIO-ACTIVITY OF AIR, FOOD, AND WATER. LIFE IS STILL TOO SHORT FOR THE ACQUISITION OF MASS WISDOM. YOU DIE AS ADOLESCENTS, OFTEN IN THE AWFUL STENCH AND FIRE OF CARNAGE AND DESTRUCTION, WROUGHT BY CHILDREN WHO KNOW NOT WHAT THEY DO, OR PRECIPITATED UPON YOU BY EVIL ONES AGAINST WHOM YOU HAVE PREPARED NO DEFENSE.

"MAN MUST ENTER THE THIRD STAGE. AT FIRST HE WAS *ANIMAL*. SECONDLY, HE TRIED, AT LEAST, TO APPLY KNOWLEDGE TO THE SOLUTION OF HIS PROBLEMS, AND HE BECAME, WEAKLY, WHAT MUST BE CALLED *SCIENTIFIC*. NOW MAN MUST BECOME *MENTAL*. HE MUST TAKE A GREAT STRIDE FORWARD; AS A WHOLE SPECIES HE MUST MUTATE, THROUGH THE APPLICATION OF LEISURE AND UNDER THE GUIDANCE OF WISDOM. IT WILL CONSTITUTE A GREAT STRIDE FORWARD TOWARD GODLINESS, WHICH IS YOUR GOAL. THIS IS WRITTEN IN NATURAL LAW.

"BUT YOU TERRESTRIALS ARE INCAPABLE OF TAKING THAT GREAT STRIDE FORWARD WITHOUT POSITIVE GUIDANCE FROM A HIGHER SOURCE. THE IGNORANT MASSES OF EARTH ARE TOO MUCH FOR YOUR MORE ADVANCED NATIONS TO CONTROL. WHEREAS THE MOST IGNORANT GROUPS, WITH THE SHORTEST AVERAGE LIFE SPAN, BREED THE MOST

PROLIFICALLY, THE HIGHEST INTELLECTUALS AMONG YOU PRODUCE FEW CHILDREN, OR NONE AT ALL. YET THE FEW CHILDREN WHO ARE BORN TO THE INTELLECTUALS HAVE A CHANCE OF LIVING MUCH LONGER, EVEN OF ACQUIRING WISDOM. THE END RESULT IS A CONDITION WHERE IGNORANT BILLIONS OF HUMANS MUST DEPEND, FOR THEIR SALVATION, UPON THE LEADERSHIP OF AN INTELLECTUAL ARISTOCRACY. THE TIME WILL COME WHEN ALL MEN MAY WALK WITH EQUAL KNOWLEDGE, BUT IN THIS PARTICULAR STAGE, WHICH IS VERY PRECARIOUS, YOU REQUIRE THE GUIDANCE AND THE FIRM RULERSHIP OF A BENEVOLENT PERSON WHO IS WISER THAN ALL OF YOU.

"IN ONLY A FEW MOMENTS YOU WILL WITNESS THE ATTACK OF THE DEROS UPON AGARTHI. YOU WILL SEE THE TYPE OF DEMON ENEMY WITH WHICH YOU WOULD HAVE HAD TO CONTEND DIRECTLY WERE IT NOT FOR AGARTHI. WE SHALL HELP AGARTHI TO SMITE THESE MANIACAL CREATURES AND ELIMINATE THEM TO THE LAST MAN, SO THAT THE ORDINARY TERRESTRIAL WILL HAVE NO EXCUSE, THENCEFORTH, TO FALL INTO THE WAYS OF VOLUNTARY EVIL.

"IN ORDER TO MAKE SURE THAT MANKIND WILL HAVE A GOOD OPPORTUNITY TO BENEFIT BY WHAT THE ELDER RACE DOES THIS NIGHT, WE SHALL, IN SOME MEASURE, GUARANTEE THE LASTING BENEFITS OF THIS BATTLE WHICH YOUR WRITTEN PROPHECIES REFER TO AS ARMAGEDDON. WE TAKE THE JUSTIFIABLE LIBERTY OF PLACING OUR CHOSEN DEPUTY IN CHARGE OF EARTH. ONE YEAR FROM THIS DATE HE WILL TAKE OVER ALL GOVERNMENT OF THE PLANET. THIS MAN IS THE LEADER OF AGARTHI, AND ON THE STRENGTH OF WRITTEN PROPHECY HE IS ALREADY CALLED THE KING OF THE WORLD. HE WILL RULE BENEVOLENTLY AND IN WISDOM FOR A THOUSAND YEARS. I,

RAMA KHAN TOR, HAVE SPOKEN."

AS MYSTERIOUSLY as the vision had formed on the screen, it faded. There was a tendency in the U. S. Senate Chamber toward wild-eyed discussion. As one body, the audience there gathered began to argue and shout.

"That's a fake!"

"No, by God, I believe it!"

"It's over my head!"

"Hey, George! Now you can pay off that bet! You said this was going to be the announcement of American surrender. Wow! Were *you* off the beam!"

"What a night!" cried a reporter, knocking over a starry eyed photographer. "Gang way for the telephone! Hold the presses!"

Some there were who merely sat and stared pensively at the blank televisior screen. Something of that ponderous speech had struck deeply into the more sensitive personalities, striking home at instincts and wondrous words of prophecy which they had heard in childhood, a remembrance when they were humble and had ideals—ideals which they were forced to sacrifice upon the altar of maturity.

These latter, such as Kent and the president, were the first to stand up and shout for silence when the televisior screen again became active . . .

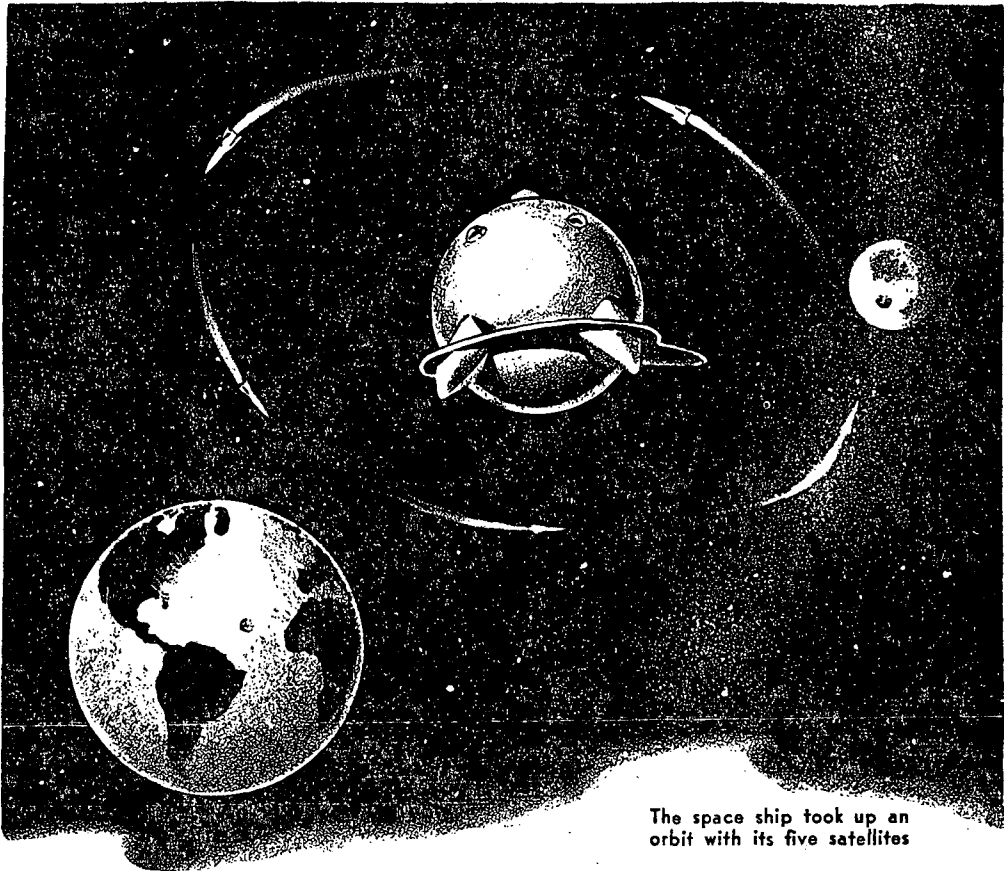
"Ladies and gentlemen," said the unseen announcer at Agarthi. "This is Armageddon. It is a dangerous moment for all the world, but that danger is minimized by the existence of Agarthi, and by the presence of the Elder Race armada. The dero, who number some fifty millions and who have a hundred very deadly spaceships laden with weapons which the Elder Race itself once fashioned, are now well aware of their own danger. But, realizing that they will be given no quarter, they are out to fight to death. We of Agarthi hope that this sight will humble Man on Earth to the realization that he has yet very much to learn."

CHAPTER XV

Finale

NICHOLAS THE FIRST did not know about the advent of the Elder Gods. He only knew that the dero were planning to take over. And that was enough.

The space ship had been built behind the



The space ship took up an orbit with its five satellites

Urals in one month's time, through the utilization of all the greatest facilities of a powerful Russian industry. Steel plants, ship builders, radiotronic experts, all had been mobilized under seal of secrecy, fooled into believing that the ship was for Russian defense. It was a fine ship, large enough to carry tons of provisions and a crew of fifty men.

Nicholas, owing to commitments made necessary by the peculiar nature of the enterprise, had rewarded his cooperators either with a radium bullet or with passage on board the ship. He ended up with ten people, including the persistent Pavlovich. Dr. Borg he had not seen or heard from, so he had presumed, with some relief, that the scientist had not been able to prepare a similar vessel anywhere.

So it was that the spaceship took off on a supposed trial run, but provisioned secretly to make a trip to Mars. Nicholas knew there was sufficient atmosphere there to sustain life, especially within the ship after their oxygen supply ran out, because

it could be supercharged with oxygen from a much thinner atmosphere than that which Mars would afford them. And, knowing of the presence of plant life there, he also assumed that animal life was also a necessary link in the biological cycle. The undisputable evidence of the canals, revealed clearly in 1957 by the first electronic telescope, meant that a highly intelligent type of beings lived there. These he was interested in recruiting to the cause of domination over the deros and the entire solar system.

But first there was Agarthi. Nicholas felt that he should deal with at least one potential enemy before leaving. To this purpose, he carried five powerful atomic bombs under the hull. They were held on by magnetic attraction only.

As the spaceship lifted up out of Russia and headed for Inner Mongolia, Nicholas the First bent anxiously over Pavlovich's shoulders to look at his radar screen, because Pavlovich was acting as bombardier.

"We're out of Earth's atmosphere," an-

nounced Pavlovich, elatedly. "Altitude, seven hundred and fifty-eight kilometers. Velocity: three thousand kilometers per hour. We'll have to circle until I plant the eggs."

The "eggs" were the bombs, which were to be radio controlled to their target. Svenga, the dark-skinned Russian mystic, had come along. He alone had mapped out the exact location of Agarathi. He stood also behind Pavlovich and watched.

"These bombs," he asked, "are completely capable of putting an end to Argathi?"

"They are special," said Nicholas. "Beyond ordinance limitations for percentage of efficiency. They might even set up chain reaction. According to calculation, one of them should be enough. But just to be sure, we'll throw all five at them!"

"Always the safety factor," remarked Svenga, wryly.

"We are over Mongolia!" announced Pavlovich. "Here go the bombs! One away!" His fat hand flipped a toggle switch, and at the same time he clamped a pair of receivers on his head and adjusted the remote controls on the first bomb.

They saw a black rocket shape dive into the field of vision of the radar.

"Two away!" And another sprang out toward Agarathi. The passengers on board braced themselves as the fast ship began to run a curved course over that part of Asia.

"Three away!"

"How soon will we see the explosion?" queried Nicholas.

"In about ten minutes for number one," said Pavlovich gleefully. "Four away! Five away! A kiss for you—Agarathi!"

Not far above them floated a vast ship of the Elder Race. Its observers had easily detected the comparatively tiny ship and the ray operators had read the puny mind of each individual on board.

"I RECOGNIZE IN NICHOLAS THE ROOTS OF AN EVIL GENIUS," remarked one of the Elders. "HE SHOULD BE MADE TO SUFFER."

"THIS CAN BE DONE EASILY," smiled another Elder. "SHALL I SHOW YOU HOW?"

"YES, GHOSTUN DRA NOR, WE WOULD SEE IT DONE."

"SO BE IT!" said the vast god-giant who was called Ghostun Dra Nor. And he

began to arrange a just fate for all those who were on board the Russian ship.

First, Pavlovich's bomb control unit burned out. Secondly, the rocket bombs turned in their courses and headed back toward the ship. But if the terrified observers within had expected instant death they were deceived. Instead of colliding with the ship, the bombs began to circle it in ever narrowing orbits.

Nicholas shouted for full speed. The ship leaped far into space, throwing them all to the floor with the acceleration. But the whirling bombs followed. Straight for Mars the ship darted, with the speed of a meteor, but it could not shake off the circling bombs.

"Someone," said Svenga, "is pretty smart. What we have picked up for our trouble is five satellites, gentlemen. They swing in fixed orbits and it would be dangerous for us to *disturb* their equilibrium!"

"Satellites!" cried Pavlovich. "That means that we can never land!"

Nicholas the First said nothing. To this there was no answer. Doomed to hurtle through empty void, with five explosive satellites. Soon a meteor would strike one of them, and it would be the end. . . .

But to the Elder Race, neither such torture, nor such a chance for further damage could be countenanced. Instead, Nicholas the First and his ships were pursued toward the asteroid belt and there, among the tiny debris worlds, they sought to escape, but found that collision could not be avoided as the great rays of the Elders' ships drove them upon the jagged fragments.

Even when they sought to escape in lifeboats, their action was useless. There, among the debris of an exploded world, flashes of light announced the doom of Nicholas the First, and a few more fragments of debris took up their complicated orbits in the Belt of the Lost Orb.

ON EARTH, the dero ships hurtled upward out of their secret caves, losing no time in deploying and hurling all they had at the Elder God ships. Men on Earth, without the aid of television or telescopes, saw vast thunderbolts greater than those of Nature light the void of space beyond the atmosphere. And they saw the dero ships blast into atomic disintegration like bright novae, lighting the world in the dawn

of a new era.

Other dero ships dove at Agarthi, ancient, supercharged dis-ray batteries shaving off tops of mountains as they neared their objective. But Agarthi's great field screens were up and the experienced operators there blazed back with their much heavier stationary armament. Many a dero ship blasted into nothingness under that concentrated defensive fire, but also many an Agarthian operator was busy throwing in defensive screens where others were overloaded and shorted out. In the meantime, the great flagship of the Elder Gods lay hidden in a huge valley of the Himalayas, holding its far superior fire in case help should be required.

The dero, seeing that open attack was futile, fell to a secondary means of offense. They decided to turn upon the helpless surface world cities. In fact, subterranean dis-ray operators blasted several European cities out of existence before the Elder Gods decided to enter the battle.

Deploying themselves almost instantaneously about the world, through the utilization of extra-dimensional portation unknown to Man, they blasted through all field barriers with paralysis beams. Then they systematically swept powerful death-rays through the caverns, sparing only certain secret places where dero colonies still lived. It was a clean sweep on the deros. Their last ship was blasted, and their last man died. . . . It was the first overthrow of Evil's tyranny over Earth since Paradise had been abandoned.

Only one dero escaped, unobserved by all in the excitement of Armageddon. One lone survivor, Kar, himself, sped toward Venus in an ancient ship of space, together with a number of surface slaves whom he handled through the ro mech. . . .

The next day after the battle a free world awakened to the awareness that a new age had begun. The Russians offered to cease hostilities, and the Asiatics rested on their guns, demoralized. Joyous communications flew across the world. Great plans for positive peace and social reorganization sprang into men's minds, in spite of the disgruntled Quislings who would be forced to relinquish their power and authority over many a duped nation. . . .

IN CHICAGO, Michael Kent was a guest at the presidential residence. He and

the president, plus a dozen senators, several governors and congressmen and representatives of the press, were having breakfast.

The president grinned, self-consciously. "There seems to be so much to talk about that we're all scared to begin," he said.

But that broke the ice.

"Mr. President," the man from the Chicago Sun opened up, "what would be the attitude of this government if a supposedly benevolent dictator, that is, if this so-called King of the World, demanded that we should accept his rule?"

"I see," smiled the president, resignedly, "that the discussion of the ages begins . . ."

And so it did. While a great babble of voices ensued, Kent became lost in thought. Because Germain had contacted him.

Your work, Germain telepathed to him, has only begun, Slim. During the coming year you will represent the King of the World in the United States. In a short time you are to be brought to Agarthi for full instructions. In the meantime, you may be interested to know that Lillian is with me.

Thank God, thought Kent. That makes me alive again. God bless you both, Steve! You deserve happiness.

So do you, Slim. There is much ahead for all of us. Incidentally, remember Dr. Borg? Guess what! He's here in Agarthi! Came and confessed all his sins about a week ago. Said he wanted to devote himself to the study and advancement of Agarthian science!

No! Steve, retorted Kent, mentally. That's wrong! Why, the man is a fiend who must be destroyed along with the dero!

But you forget we have mental conditioning machines. Borg is a changed man. He's something of a genius, you know. Given a worthy purpose, he can go far.

Well, I still say he doesn't deserve it, insisted Kent.

I think we will one day be glad we forgave the old goat.

Anyway, say hello to Lil, thought Kent.

She's here beside me now, replied Germain. She's beautiful, the way they've dressed her. Say, incidentally, I've got some further good news, Slim. I'm going to get a special break. The Elders, before they leave for home, are going to take me on board one of their ships and give me a surgical going over.

What? thought Kent.

Yes. They say Borg's operation was too lavish, left me too supercharged for my own good. So they're going to tone me down a bit and replace the artificial harness I've got in my head with the real flesh. I don't know how, but they promise to do it. Afterwards, I'll look a little more normal and can stop wearing this silly turban.

More power to you! commented Kent.

Lillian just threw a kiss to me which she says is intended for you. How do you like

that, and I'm supposed to telepath it! Hey! Remember that dimple she always used to have, the one that got lost? It's come back! And she's trying to distract my thoughts with it!

Several senators saw Kent grin into empty space. They did not know how incongruous it seemed to Kent to receive mentally two words which he had heard from the lips of an old friend since childhood.

They were: *Jumpin' catfish!*

ROCKET CHASER

MOST scientists will concede that after the atomic bomb and the V-2 rocket, the second World War's greatest technical development was the proximity fuse. Unlike the other two, very little is heard about it these days—probably because it is so important. Technicians are working night and day to perfect it in all its applications. Actually, the proximity fuse is a sort of miniature radar.

The proximity fuse as applied to artillery was simply a minute radio transmitter and receiver, designed for operation on a high frequency, connected to a small antenna, built extremely ruggedly and fitted to an artillery shell. It is a known fact that an artillery shell, whether anti-aircraft or for ground use need not necessarily make a direct hit to be effective. In fact a definite radius of effectiveness may be ascribed to each type of shell. The trick is in making the shell explode when it has neared—say within fifty feet or so—its intended target.

The shell is fired from the gun. After a certain time, when the shell has risen safely away from the gun barrel, an automatic switch turns on the little radar-transmitter in the nose of the shell. This is powered by small but powerful batteries. The antenna in the shell's nose guides the waves into a cone-shaped pattern in front of the shell, covering quite a large area—the area of effectiveness of the shell upon explosion. As the shell rises it continues to send out these pulses of radio waves and as long as it does not come near anything, all is well. But the minute it approaches within the danger zone of its power, to a plane or a rocket or a tank, the radio waves it has been sending out are reflected by the object. These reflected waves are picked up by the receiver in the shell's nose—just as in radar—amplified, and used to ignite the shell, to cause its explosion. Even though the shell has not touched its intended target, it has gone off with an effective bang within range of it.

It provides military men and scientists with an "intelligent" missile, one which "knows" enough to explode at the proper time. While the proximity fuse was applied primarily to artillery shells during this last war, in the future it will be in the warhead of every guided missile and rocket

projectile. It came out too late during the war to be of a decisive nature, yet in the form of anti-aircraft artillery it did exceedingly fine work against the Japanese suicide planes. It was used against the German infantry and tanks too. While the Japanese did not develop a proximity fuse, the Germans did, and they used it with dreadful effectiveness against our bombers, fitting it to the heads of their anti-aircraft rockets and shells. In future warfare it will be a must.

When rockets and shells are fired against other rockets, with such terrific speeds as are necessary to give even one chance of interception, human techniques fail. It is necessary to use robot brains—which is what the proximity fuse really is—to get any success.

The marvellous thing about the proximity fuse is in its complete simulation of a radio receiving and transmitting station in such small size. In a space hardly larger than a pack of cigarettes, scientists have included, a power supply, a transmitter, a receiver, an antenna and the associated controls. To top it off, the entire set is subjected to such massive strains and stresses that naturally follow high accelerations, that it is a miracle that the set can work. But it does.

We have used the term "proximity fuse" to describe this intricate mechanism. It is not an exaggeration to prefer "robot brain." For that is exactly what the device is. It takes over the control and operation of thousand-mile-an-hour projectiles and guides them in almost any conceivable fashion. While it has so far been constructed so as to fire the projectile at the desired moment, it is only a matter of a relatively simple technological step to enable it to control the direction of the weapon. This would necessarily combine, the "brain" with a gyro-mechanism, another power supply, and mechanical connections to stabilizers or directional rocket controls.

A group of hobby-ists at present, are working on something similar. This is the control of small model planes and boats and cars by radio.

The cross-Atlantic flight of the American bomber a short while ago is another application of the same idea. While it is at present far from a "push-button" state of affairs, we have at least more than the push-button!



The PHANTOM HANDS

by BERKELEY LIVINGSTON



He recognized the hands at the gun position!

Out in space strange conditions exist. So strange that there is no earthly comparison, and what happened to Captain Markham was impossible!

"CAPTAIN MARKHAM. . ."
I snapped to attention and stared straight into the eye of Supreme Commander Olsen (his other eye was covered by a patch) with all the confidence I could muster.

"... It is only fair that you should know the immediate necessity of the detail to which you've been summoned.

"I can say this to you because, well, shall we say because of the friendship which once was between your father and me. We are losing the war. . . ."

I know I went pale; I could feel the blood leave my face, feel my limbs tremble slightly, and felt the pulsing of the vein in my right temple. Losing the war. . . . My jaws lost their rigidity and my voice boomed out before I could control it:

"No! No! Why—why only yesterday there was that victory beyond Venus. . . ."

"A Pyrrhic victory," he said softly. "A paper victory which the public read about and was eased in mind. No, Markham, we *are* losing the war. I tell you this, no matter what you may read or hear. The forces in opposition are simply too powerful for us."

My amazement knew no bounds. I could only stare with a sort of wordless horror at the man seated at the plain desk in the simple office which was like a home to him. The Supreme Commander had aged in the past six months of the titanic struggle we were going through. Oddly enough it wasn't in the palpable things, like the greying of hair, the impairment of physical things. No. It was in the spiritual side, the

things to which no man could lay his finger to and say, it is because of this. I speak of courage and soul. The last six months had driven these things from him. Now he was a shell talking to me, saying words which weren't true. . . .

I spoke again before I realized how the words could hurt:

"My father would not have spoken so. . . ."

His voice held a tinge of bitterness when he said:

"*Your father!* Captain Markham, your father is a closed door which I refuse to have opened. It was only through my offices that you were allowed to join the services and attain your present rank. I said the sins of the fathers should not be visited on the sons. . . ."

"Sir," I said, "I—I think it only fair that I know what my father did. . . ."

He cut me short:

"Your orders, Captain. Report to Space Port 4X83. The *Conway* is awaiting your command. A picked crew has been assembled and is in readiness. Now as to your mission. You will search out and destroy the super-cruiser of Iosos, their ace in the hole. A word of warning. The cruiser carries the heaviest complement of space weapons ever assembled on a single ship or for that matter on any fleet. On the cruiser they have placed the destroyer of our atomo-magnetic belt, the single saving source of this war. For without the protection of the *belt* we would surely have been invaded. It is the sole purpose of that cruiser

to break through the *belt*. And it is your single purpose to prevent that. In effect, it is a suicide mission. For obviously the cruiser will be protected by a swarm of destroyers. . . ."

He took fresh breath and went on:

"I will be perfectly truthful. The chance of you accomplishing your mission is pitifully small. But it is a chance and we must take it. Our intelligence has but only this morning brought me the facts in the case. I have presented them to you. The rest is in your hands. Good luck and God-speed. . . ."

His hand was outstretched for mine. I took it and shook it hard and let go. His answering salute was as casual as it had always been, yet I thought I detected a sort of farewell in it. . . ."

THERE was an air of excitement about the *Conway* which was slightly different than was usual before the take-off of a battlewagon. It was the repressed excitement of hundreds of men trying to act as if nothing out of the way was taking place. Yet it was to be seen in their faces and actions. The crew too, seemed to be affected by the same virus. Their faces were set and hard, from the humblest airman to Lieutenant Jason, my second.

We had been too long together to have any formalities between us. He gave me that funny twisted grin of his and followed me to the cabin.

"Well, Ted," he said, "looks like we're in on a big deal, eh?"

"The jackpot deal," I said. "The mystery cruiser. . . ."

His eyebrows rose and his lips went into a surprised pout. He knew the implications of my remark.

"When?"

"Soon as we're ready. Better signal for general assembly," I said. "Only fair to tell the boys. . . ."

I could not see the faces of the men as they heard the news over the speakers. But I could well imagine them. I didn't spare them anything. After all, death comes to all. I just couldn't ease the seriousness of what lay before us, however. Those men below had to know what they were facing. I needed something stronger than water by the time I was through. Harry Jason filled a couple of water tumblers with whiskey and we downed them as though it was water.

"Might as well get down to the nav. room," I said. "We're shootin' in the dark on this. . . ."

"Not so much," Harry said. "The *Bendix* ran into it, and I'm speaking of past tense, out near the twenty-third parallel. That was only four hours ago. Markoff was able to send out a bit before they blew the ship to kingdom come . . . a hundred thousand tons, he called it. That, Teddy boy, is a lot of ship."

I had to whistle. It seemed impossible. Our biggest battlewagon was only twenty and we thought it the largest ever constructed. The *Conway* was a midget, a five-thousand tonner, but the most terrible midget ever to fly the skies. We packed the wallop of ten times our weight.

The twenty-third parallel was beyond Mars some couple of million miles. I didn't like that. Mars was dead. I hated the thought of bailing out and landing on that scarred and terrifying planet. That was presuming, of course, that we would be alive to bail out. I'd rather the fight was near Venus. Some chance in that direction. Harry was observing me closely. I had to grin but it was a bad show. A child could have seen through it.

". . . That bad, eh?" he said.

I nodded soberly. No use kidding him. We settled down to a bit of silence.

Why I suddenly thought of my father, I don't know. But suddenly he was alive before me. I could see his spare frame, the square shoulders that seemed so wondrously wide for his build, could look into his deeply shadowed eyes. I grinned as his lips seemed to crinkle in a well-remembered smile. . . .

"What's so funny?" Harry asked.

I must have looked very silly because he shook his head sadly, and said:

"Thinking about your father, Ted?"

"Yep! Guess I can't stop. His memory is like this darned war, just won't stop. How long now, Harry?"

"You mean the war?"

"Uh, huh," I said.

"Twenty-nine years. . . ."

"Twenty-nine million years, you mean," I said. "Three generations of children fighting it. I was born to it and have known nothing but it just as you have. I remember they taught us how it began, with those flying disks which came some fifty years ago. The surveyors of Armageddon, shall we call them? They flew back to Iosos and were taken apart and their mechanisms checked. They knew what they had to do long before the war began. And now we are at the end of it. Let's not kid ourselves, Harry. This is the end, one way or another. Our strength is gone, and I think theirs is too. We are the appointed of destiny. And only destiny can show us the way. . . ."

It was the longest speech I'd ever made and perhaps the emptiest. I had to go on to the end, though:

" . . . I only wish I was at my father's side when it comes."

"You mean you wish he were at your side," Harry said.

I DIDN'T get it. Then it dawned on me. I had spoken as though he were still alive. Before I could attempt an explanation, there was a knock at

the door. I called an entry and looked with surprise at the man who stood at rigid attention on the threshold. He was past middle age, though his hair was only grizzled and the figure still straight. But I had instantly recognized him. It was Laris Moonga. . . .

"Sir," he said. "Gunner's Chief Moonga, reporting for action."

"At ease," I said. "Now come over here, you old space rat and shake my hand."

He grinned broadly as he did and even more when I motioned toward the bottle of whiskey. It was like having the past with me again with Laris in the room.

"What brings you aboard?" I asked.

"Sealed orders to report aboard the *Conway*, sir," he said.

"You do the ship honor, Laris," I said. "The best gunner in the world, in the universe, for that matter. Sit Laris. Take-off won't be for a while yet. We haven't received clearance yet."

He sat and grinned at me, the old ape, and I returned the grimace.

"Like being with your father," he said after a moment.

It came to me like a bolt from the blue, here was a man, one of my father's dearest friends, who had been with him at the last. Somehow I had to know of those last hours.

" . . . Well, son," Laris said after a short interval. "Your father was the greatest space fighter who ever lived. I tell you this. I, who have seen the best on Venus and Mercury, those two warrior planets whose whole lives for the past five hundred years have been given to fighting.

"Y'know," he continued irrelevently, "when we first saw the flying disks, some thousand years ago, we didn't know what to make of them. . . ."

"A thousand years ago?" Harry

broke in.

"Yep! They made their first survey a thousand years ago. In the Earth year, nineteen forty seven. But they were a curiosity on Venus then, just as they were on Earth. When they appeared the second time, fifty years ago, only your father had the right idea about them. No one would listen, though. . . ."

"What do you mean?" I asked. This was the first I'd ever heard of it.

"? . He said," Laris went on as though he hadn't been interrupted, "those disks had been sent out from a place not far from either Venus or Earth. He said Mars would be the best spot. The High Command laughed him down. Ted," he suddenly looked me full in the eyes, "do you know why your father was called a traitor?"

"No!" my voice was high. "Why?"

"Because he took a ship out on his own and went there to investigate. That ship was never heard from again. They called him a traitor because it was at the same time that the Iosos' envoys broadcast their 'forgiveness' appeals. The High Command thought your father had gone over to the enemy." His voice held more than a trace of bitterness as he went on, "I would be there with your father, as I had always been on his journeys, but I had been shot up in a skirmish a week before. He wanted me to get well first, go out on the second shot at them. There was no second shot for me, not with your father. . . ."

"And why did he go to Mars?" I probed.

"Because he said Mars was the logical point for launching their ships, whether the High Command thought so or not."

There was a piping sound from the com. tube. I snapped the switch and a voice called my attention. There

wasn't going to be any talk from here on, I knew. This was it. The tower on the surface had given me clearance. I looked at the two men in the room with me, but my thought was on those below decks, the thousand men under my command. In this tiny room lay their hopes and prayers. For this room was the nerve center of the ship. Here lay the gunboard, the steering devices and all the other apparatus which were the life arteries.

"Let's go, Harry," I said. "You take the first shift. The board's yours, Laris and may your shots never miss. As for me, I'll get to work on the maps. There are a couple of points I want to clear up. . . ."

THEY burst in tiny flashing points of orange-colored balls. But within those innocuous shifting lights were the most terrible things ever let loose on mankind, cosmic-bombs. The enemy were all about us, hundreds of small scouts and dozens of destroyers, all bearing the silvery signs of Iosos.

My hand was steady on the controls. The rada-magni-vue showed the whole plane of battle as though the enemy were only a few feet away instead of thousands of miles. I caught a glimpse of Laris at the gunboard. Flickering points of light blinked the gun positions and his hands were like those of a concert pianist as they flew about the board depressing keys and releasing others. Harry Jason too was busy. His mouth was glued to the com. tube and one hand was on the controls leading to the engine room in the heart of the ship. We were a smooth-working crew up here, I thought.

I had flown directly into the lair of the enemy. As if hands other than mine were directing, I steered directly for the scarred surface of the red planet,

Mars. A third of the way from it we got our first warning. And immediately after the first sight of the enemy. Now we were in the midst of battle.

The ship shuddered as we were hit time and time again. But always lightly, never in a vulnerable spot and never with a heavy charge. On the other hand Laris never missed. And when our charges burst a ship fell flaming into the void of space. We were blazing a path of hell through the massed ships of the enemy. I couldn't understand it. True, we were a large ship. But they had seen larger. Moreover, we were alone. I couldn't understand it. . . .

"... Four hundred men wounded," Harry's voice came to me. I turned and saw his worried face. He went on, "One engine gone . . . a lucky shot hit the atomo-generator. Gotta operate at two-thirds speed."

I bit my lip hard.

"We've got to locate that ship, Harry," I said through set teeth. "That's an order. . . ."

He understood. No turning back. Once more I fixed my eyes into the rada-screen. My yelp of excitement brought them to instant attention:

"The super-ship. I see it. Signal all hands. Laris. . . ."

"Yes, Ted. . . . ?"

"This is it, man. Father was right. They used Mars as a base. The ship came out of the planet. I saw it. . . ."

But there was no time for more. Swift as light it was streaking for us. Like a hyena, who has waited for the jackals to first rip the prey, it streaked toward us, boring in for the kill now that we were wounded. I heard a strange, high shout of exultation and wondered for a second who had voiced it. But when I saw their tightly compressed lips I knew it was I who had given voice to that scream.

It was going to be up to me. The

gunboard was synchronized to the controls. Laris would fire only as I brought the ship into proper range. And we were within range!

The range was two thousand miles, a thousand, five hundred, and the bursts were full on it. My eyes widened and my heart sickened as I saw how little effect they had. I twisted my body into a tight spiral; we were not yet free of the lice which were trying to do us in from all sides. But Laris would automatically take care of them. . . . Suddenly it seemed as if a great weight struck my chest. They had cut loose at us as we passed them. God! The power they had!

A BLACK cloud formed and slowly passed from in front of my eyes. I called a reserve of will power to answer. Harry was sprawled out on the floor, blood pouring from his nose and mouth. Laris, good old Laris, was swaying on his feet. But his fingers were still on the board. And they played those keys masterfully. For as my eyes went back to the rada-screen I saw a whole section of the bow fall away. A hit! And a darned good one!

Harry got off the floor and resumed his place at the com. tube. The blood was still pouring from him and his eyes were still glassy but his spirit was still high. He kept shaking his head as the reports poured in from below.

"... Yep. Got it! . . . I don't care how bad we're hit. Keep that engine at full speed even if the whole damned ship falls apart. . . ."

He turned to me and shook his head. I interpreted the look. Things weren't going well below. He said, "We've been hit bad again. The whole after-deck's afire. They're doin' their best to keep the fire confined. Looks bad, Ted."

We didn't stand a ghost's chance. What was the use of kidding ourselves?

Suddenly I wished for my father. A word, a gesture. . . . *The whole world exploded in flame!*

I tried to lift myself from the deck. I couldn't. Harry was lying on his side and I saw that his head had been practically torn from his body. Laris lay slumped over the board and even as I watched, his body slipped down to sprawl in a welter of blood. I knew I had to get to the board. I pushed forward with my—my. . . . I screamed in pain and terror. My hands! *They were only bloody stumps where the arms should have been!*

This was it, I thought. The last mile! I prayed and cursed. If I only had my hands. . . . Suddenly a vision of my father was there in front of me. He was standing over me and that twisted smile was on his lips. He stretched out his hands and lifted me erect and when I looked down I saw that my arms were there. My arms! He motioned with his head for me to go to the radar-screen. And without waiting to see if I did, he stepped to the gunboard.

I looked into the screen and saw we were still flying. I could hear, though dimly, the chattering of the com. tube. Good. There were still some below.

The whole screen was filled with the terrifying picture of the Iosos cruiser. We couldn't have been more than a few miles from it. Flames were spurt- ing from its side. But from its hun- dred gun ports orange balls of flame were seeking us out. I turned and saw my father, his lips still twisted in a smile, gently depressing the keys. I gasped in terror as the whole screen in front of me lit up. And though they were a long way off the sound of their disintegration was like a clap of thun- der in my ears. We had won. My father. . . . My father!

I screamed and screamed again. My father wasn't at the board. Only a pair of hands. But I had recognised them. The little finger bore a ring I had seen the *last time I saw him!* Then, like a wraith in a marsh, it faded from view and there was only the board with Laris slumped at its foot. I started to laugh and the laughter rose higher and higher as I looked down at the screen. My father's last shot had been a direct hit. The cruiser fell apart before my eyes. But I wasn't laughing at that. I was laughing at the bloody stumps of what had once been my hands. . . .

THE END

B E G I N N I N G

By

MARGARET ROGERS

★

ONE of the most fascinating events in AMAZING STORIES was the publication of a reputedly true experience in a cave beneath Mexico, by Mrs. Margaret Rogers. Our readers will remember that story, as an integral part of the famed Shaver Mystery. Mrs. Rogers got more than four thousand letters concerning her adventure, and the whole thing raised quite a rumpus. Many readers asked for more information from her, and your editors were deluged by requests for more from her on the subject. Apparently many people believed her implicitly, and many others were so intrigued that they desired

proof. Naturally she could not answer them all.

Now Mrs. Rogers has written a book, and published it at her expense. It contains her adventures, complete and unabridged, and serves as an answer to all those people who wanted to know more. The book is titled "Beginning," and we recommend it to our readers as supporting evidence to the Shaver Mystery. She says it is copied from ancient records few surface beings have ever seen. You can get it by writing Mrs. Margaret Rogers, 117 Devine St., San Antonio, Texas. The two dollars it costs is well worth it to Shaver Fans! Your editor enjoyed it very much.

The horrible essence oozed forth, and assumed the body of a monstrous **THING** ..



Strictly from Mars

by **ROBERT BLOCH**

**No such thing could exist!
But it did, and it was linked
with an eight-year-old child in
an orphanage . . . with death.**



THERE were three of us in the room—me, Bunny Hartwick, and the pink elephant.

Hartwick and I did all the talking. The pink elephant said nothing. He just sat there and looked at us. I knew that look. I've been drunk with Hartwick before.

We've never had the usual arrangement between editor and author. Bunny wouldn't buy my yarns if he didn't think they stood up, and I wouldn't send them to him if I didn't believe his magazine had something on the ball. But, professional relations aside, Hartwick and I were always good friends, and I looked forward to my trips to town.

Tonight, as we sat in his apartment and held our little session over the Scotch, we'd reached the stage of kidding our own stuff. The pink elephant, not getting any attention, went away.

"You science-fiction hacks are all crazy," Hartwick snorted. "How do you get that way?"

"Associating with editors," I told him. "It's catching."

"I'm sane enough. I work for a living. Get a salary and everything," Hartwick answered. "But you writers—ye gods! Ought to hang out a sign. 'Worlds conquered while you wait—1c a word and up.'" He chuckled. "Sometimes ½c a word, under a pseudonym."

Hartwick raised his angular body from the sofa and strode up and down before the artificial fireplace. I had to shout my rejoinders as he paced.

"What would you s-f editors do without us?" I inquired. "You'd have to go back to digging ditches where you belong."

"That's more than you writers could do," he insinuated. "Ditch-digging is too practical for your kind. A science-fiction writer is a guy who knows everything about interstellar space but hasn't

got enough common sense to find his way out of a phone booth."

Hartwick was in rare style. He not only handed me a rib; he barbecued it.

"What crummy specimens you authors are," he chanted. "Petty little introverts, crouching over your typewriters in flight from reality. Achoo!"

"Gesundheit!" I snapped. "What would the fans say if they heard you handing out such a line?"

"They'd probably agree with me. You see, it's not real fantasy or science-fiction itself that gets me down. It's just the type of person writing it. I'm a great believer in science-fiction, but the authors are utterly incredible. Achoo!"

"God bless you and nuts to you," I replied. "Kindly quit walking and talking in circles. You like science-fiction, then, but you don't like the way we write it—is that the argument?"

"No argument about it. Self-evident. What is science-fiction today? A never-never land where all the Martians call their planet 'Mars'. A marijuana nightmare where brains grow big as watermelons and worlds collide in a game of cosmic billiards. That's the sort of thing you authors turn out. While all around us move marvels far greater than your poor concepts.

"I'm serious." Hartwick sat down, facing me with an intent stare. "For example, I recently ran across a woman who runs an orphanage and she told me—"

"Skip it." I stood up, swaying slightly. The pink elephant had suddenly returned, and I had a definite urge to get out of there before it stepped on me. "I'm going back to the hotel," I announced.

"Don't go, Dan." Hartwick was suddenly earnest. "I want to talk to you. Seriously."

"Not now. You win the argument.

I agree with you. Science and fiction don't mix. Neither do Scotch and straight gin. I'm going to bed."

"But—"

"We'll discuss it tomorrow," I said. "Goodnight."

"Achoo!" said Hartwick.

On which remark we parted. I rode back to my hotel in a cab, laughing in a rather inane and befuddled fashion as I thought of our discussion. Of course Hartwick had won the argument. There was nothing to argue about. We science-fiction writers did deal in fairytales. Our situations were incredible, utterly falsified.

"Just a fake," I mumbled to myself, as I stooped and inserted my key in the lock of the hotel-room door. I walked in, switched the light on in the empty room.

And then the voice rustled forth—the voice, whispering from empty air in my hotel room.

"*Mars calling Earth*," it whispered. "*Mars—calling—Earth!*"

CHAPTER II

YOU know how it is. It just doesn't happen that way. You write it a hundred times. Sure. There's only one way to do it. You have a lovable old Professor, see? And he's sitting in his laboratory with this young jag—a college athlete with a remarkably high I.Q. Boy, what an I.Q. he has! They're waiting for the Professor's beautiful daughter, lovely golden-haired, laughing-eyed Sandra Mefoofsky.

And then the college jag points to the big silver doo-hickey in the corner and naively inquires, "What's that there stuff, hey?" The Professor, with a \$64 gleam in his eye, replies (in a page and a half of bowdlerized scientific terminology) that it's a receptor-

disk communicating with Mars.

So the college jag remembers his I.Q. and says, "Don't hand me none of that stuff," and then the beam goes on and the squeaky voice says, "Mars calling Earth."

Get the old dramatic buildup? That's the way it happens when you write it.

But I wasn't writing it. I was living it.

And the voice was whispering, "*Mars calling Earth*."

I heard it. I might have been drunk when I opened the door, but I was sober now. Sober enough to search the room for wires. There was no inlet, no outlet. No concealed amplifier.

I opened the window. Nothing there but the drop to the street below.

So I stopped being sober and was drunk again. I had to be. Now I understood. Up at Hartwick's place it had been a pink elephant. Now it was a whispering voice from Mars.

"Mars calling Earth. Mars calling Dan Kenny."

My name! Why not? Why shouldn't a hallucination know my name? It was my hallucination.

It didn't frighten me a bit. I decided to answer it.

"Sorry. The line is busy."

"Mars calling Dan Kenny."

"You must have the wrong number."

The voice was patient. So very patient. "Mars calling—"

"All right! I'm Dan Kenny. What the hell do you want?"

"Your help."

"Help for what?"

"Conquering the world."

I began to wish the pink elephant would show up again. Pink elephants I can handle. I can understand them. But when a corny plot comes to life—

"Listen," I said, feeling foolish as I addressed the empty air. "Listen, you cheap practical joker, whoever you are

—show your foolish face or I'll call the desk. I'll call the cops."

So far it was all regulation. Strictly formula. Any hero would have said and done the same things.

But from that point on, things went wrong. You see, I didn't call the cops. I didn't move. I stood there, swaying, while the voice whispered to me.

It whispered to me from far away, just a voice buzzing in my brain, telling me secrets; secrets from beyond the stars.

That sounds good, but it wasn't good. It wasn't the sort of thing for a man in my condition. But I had to listen. The voice compelled, even though my head reeled beneath a weightless burden of impalpable evil. For the voice told me things, and when I could understand, when I got a grip on myself again, I listened to the message.

"—from Mars, of course. Just a scouting party, as it were. But we are equipped to transform our activities to those of an advance guard, an engineering corps, and lay the groundwork. Naturally, it is helpful to have spies in the enemy's camp. That's why we thought of you."

"Why me?" I choked.

"Because you have the type of intellect we need. An imaginative temperament. Your work has pre-conditioned you to the alien. You're not hide-bound by prejudice, afraid of the seemingly unknown. And your creative ability will be of use in planning our moves. As a writer of science-fiction—"

"Hold on a minute." It seemed silly to be arguing with a nightmare, but what would *you* do?

"In the first place," I said, "if you think I'm going to be of any help in building disintegrator machines or operating death-ray guns, you've had a bum steer, friend. I'm just a fantasy

writer, see? And—"

"We know." The voice rustled on. "And it does not matter. Our plans do not involve any such childish concepts. What we have in mind is definitely within your compass. You have been thoroughly investigated. And you come well recommended."

"Recommended? Who rec—?"

"I cannot say at this time."

"What's all this about an 'investigation'?"

"We know all there is to be known about you." The voice began to drone, as though reading from a written report. "Daniel J. Kenny, age 29, single, height 6 feet, two inches, weight 182, eyes blue, hair black, complexion—"

THAT was only the beginning. For fully five minutes the voice continued, giving a minute physical description, followed by an accurate and painstaking summary of the circumstances of my birth, childhood, youth, education, career, and present status.

I let the whispering subside and assumed a belligerence I did not feel.

"Wonderful!" I shouted. "You must have been reading my mail!"

"Your mind."

The whisper came. And then the voice began to tell me things. Things I'm ashamed to repeat. About my thoughts . . . my secret thoughts. I don't like to remember that part. I've always hated the idea of psychoanalysis. I've always been afraid to get too drunk, or go under ether, or submit to hypnosis. But this was worse. Much worse.

Let me see if I can explain it, put it across. Because the way the voice talked to me—that was responsible for my subsequent belief in it. When the voice told me *everything* about my secret self, I *knew*. Knew it wasn't a dream. Knew that its fantastic hint-

ings had a basis, some kind of basis, in reality. I began to believe that it—and what it represented—could conquer the world. With my help, or without it. And then my dreams crystallized.

The voice from Mars had investigated, all right. It knew that under the drunken masquerade of my conversation with Hartwick lay a real and burning rebellion. A hatred of the world, of its conventions, its smug money-is-power standards.

The voice was subtle, persuasive. It told me of my hidden lust for conquest, for revenge. Revenge against the petty frustrations of existence. Revenge against the real world which I had despised. That's why I had written stories of other, imaginary worlds.

And now a voice from another world—a world I had always regarded as imaginary—was talking to me. Urging me to join with it and take my real revenge.

Why not? I was drunk, reckless. Footloose and fancy-free, with a burning desire for power. Now, miraculously, my chance had come. A voice, greater than the voice of Mephistopheles that tempted Faust, offered me everything.

So I answered. "I'll see you in hell first!" I shouted. "Damn and blast you, wherever and whatever you are! You'll never take earth—get out of here and leave me alone. You—"

I exhausted my self and my vocabulary of profanity until I realized that I was swaying around in a hotel room, cursing the empty air.

There was no reply. I blinked, rubbed my bleary eyes, and realized that it must have been a dream. I reeled over to the open window and gulped the fresh night air.

The swaying beam of the fire-escape above the window caught my eye.

Could some damned practical joker have crept out on that beam and crouched there to whisper through my window?

It had to be that way. Unless it was all a drunken fancy. Or—unless it was *real*.

But it couldn't have been real.

I went to bed fully convinced of that. Then I fell asleep and began to dream. And the voice came to me again in dreams, and I woke cold with sweat, screaming, "No—I won't—no!"

I was behaving like a science-fiction hero, after all.

CHAPTER III

WHEN Bunny Hartwick called from downstairs I was still in bed. I got up, put on a bathrobe, and had just finished ducking my head in the wash-basin when he came in.

Bunny, immaculate in a summer suit, lifted an eyebrow as he took in my ensemble.

"Hangover?" he inquired.

"Worse than that," I answered.

"What's up?"

"Sit down and I'll tell you," was my suggestion.

So Bunny Hartwick sat down. So I told him. I told him everything and waited for the explosion.

It never came. Bunny Hartwick leaned forward, gazed at me with baby-blue eyes peering deeply into mine, and said, "Why didn't you take the offer?"

"Are you kidding?"

"No. But I hope you are. Here's the biggest opportunity of a lifetime—the biggest opportunity in all history—and you're throwing it away. Just throwing it away."

"Listen, pal," I drawled. "Did you by any chance happen to be hanging outside my hotel-room window on the

fire escape, making like a voice from Mars?"

Hartwick shook his head, gravely. "No."

"All right. I believe you. But don't you think that somebody else was? You don't mean to say that you believe this monkey-business?"

"Of course I believe it," Hartwick coughed delicately, then sneezed. "As a matter of fact," he said, "I sent that messenger to you."

"You did *what*?"

"I sent the voice from Mars. Or rather, that entity which manifested itself to you as a voice."

"But—"

"I thought it over very carefully before deciding to do so. I attempted to analyze your personality in the light of your probable reaction. I trust that I haven't misjudged my man."

"You mean, then, that you're actually in league with these things—whatever they are—in an attempt to—"

"Conquer the world? Of course." Hartwick's eyes were no longer baby-blue. The sapphire stare was cold, piercing.

"I'm not the only one, either. There are others waiting; other authors, in particular. The voice came to me, you see, and I sent it to the others. We are laying the groundwork now. And I'd like to see you on our side when the time comes. The time is coming, swiftly; never doubt that! We have plans.

"You will remember our conversation last night. I spoke of the difference between your writer's concept of the incredible and how it pales when contrasted with true incredibility made actual. I wasn't just garbling metaphysics. I meant it. Right now, all around you, our little plans are working. I mean today, this very moment! We are operating, hastening the day

when the structure of the world will collapse and the Martians take over."

I might have doubted his sanity, but I couldn't doubt his sincerity. He believed it—and for the moment, I believed it, too.

"You'd sell out the world, sell out mankind then, to these monstrosities from outside?" I muttered. I rose to my feet and clenched my fists. The gesture was maudlin but sincere.

Hartwick shrugged, stood up. "Why not? They'll need help in running the new world. They'll want some of us, then. And in return, we shall have power. Power undreamt of by a Hitler, a Napoleon. You and I, with minds broad enough to think in ultra-terrestrial terms, with vision encompassing more than the petty scope of earth, can assume our rightful places in the new regime. A few of us, kindred spirits, will rule it all. What you sweated out at a penny a word will become a reality bringing riches beyond compare. And it won't be hard, Dan. We have our plans all laid. Nothing can stop us. It's reached that stage. That's why I wanted to talk to you. Let me explain just what it is we mean to do, how we are going to do it. Let me—"

"You—you—cosmic quisling!" I exploded. "Get out of here. Get out before I break your neck!"

I was really angry, because you don't talk to editors that way.

"Dan—listen to me. Be sensible. I want you to see this thing, recognize its inevitability. Perhaps if I tell you how it all started, rip away the veil of cheap mystery, you'll understand."

"I understand it right now." I grabbed Hartwick by the collar and backed him across the room. "You're insane, that's what I understand. Whether this Martian threat is real or imaginary, you're insane to consider it. You want to betray mankind, do you?

Perhaps the authorities ought to hear about this."

A SNEER twisted across his distorted features as he struggled to free himself from my grasp. "What will you tell the authorities?" he mocked. "That you came home drunk last night and heard voices in your room? That a man from Mars asked you to help conquer the earth? You know where that will get you, Dan."

"Nevertheless, I'm going to try it." I released Hartwick, turned, strode towards the phone.

Hartwick moved behind me. He passed the writing desk. His hand swooped down, came up with a pointed object. Then he lunged.

I turned just in time. I jerked my head aside as the point of a paper-knife shredded the collar of my pajamas.

Hartwick gasped, struck again. I clawed at his face with my left hand, and gripped his wrist with my right. The hand holding the paper-knife twisted down. We struggled together, as he stabbed out at me. His hatred crawled across his face like a livid flame.

"You won't tell," he panted. "You won't tell!"

I bent his wrist. He kneed me. His free hand sought my jugular. He squeezed my neck. I saw his face blazing up through red haze.

My hand bent his wrist. He had to drop that knife. He had to. And then—his hand was free. The knife rose, slashed down. My elbow went out. I caught his arm, wrenched it. The knife continued in its vicious arc. It stabbed.

But it did not stab me. My blow sent the point of the blade into Hartwick's throat.

Hartwick uttered a little moan. Pink

bubbles formed at the corners of his mouth. The paper-knife hung suspended in his neck, moving up and down like a delicate little teeter-totter. I watched it dully, as Hartwick sank to his knees. Then he fell over. The knife stopped quivering. So did Hartwick.

That's when I began to quiver. My eyelids quivered as I knelt beside him and felt for a non-existent pulse. My hand quivered as I picked up the cradle phone. My voice quivered as I croaked to the room clerk, "I'm coming down. There's a dead man in my room."

My legs quivered as I made the trip downstairs in the elevator. I was shaking all over as I told my story to the room clerk. I gasped it out between chattering teeth to the house dick.

"Accident, you understand," I kept saying. "It was an accident." Not very heroic, I must admit. But very, very true to life.

"Let's have a look," grunted the house dick. He peered at the room clerk. "Meanwhile, keep it quiet." The room clerk nodded.

Then the house dick grasped my elbow and we went upstairs.

I began to tell my story again as we went up. I couldn't stop talking. As I poured it out, I realized how unconvincing the whole thing sounded.

That's because my mind was on other things. Little details involving judge, jury, a lawyer, and beyond that, the shadow pattern of bars in a death-house corridor.

The house dick nodded, grunted, led me out of the elevator and down the hall to room 1415.

I had trouble getting my key in the lock. He stooped down, reached for his own key-ring, opened the door.

I walked into the room and he followed.

"There he is," I said. "On the floor.

You see—"

"I don't see," said the house dick.

I stared.

There was no body lying on the floor.

CHAPTER IV

YOU'VE seen it in the movies.

I went through the whole routine. I looked for the paper-knife, and it wasn't there. I searched for bloodstains on a rug that held no bloodstains. And all the while I kept muttering, "But I killed him—I killed him, I tell you."

After a while, I stopped muttering and began to yell.

I suppose that's why they took me to Bellevue.

Oh, they were very polite about it, and quite efficient. And I tried to look at it with a sense of humor. But there was nothing funny in the glances they exchanged, the quiet orders dispatched, or the strong-arm methods in smuggling me out of the hotel by the back entrance.

In the ambulance I began to rave a little, and I told my story again at the top of my voice.

Then I was sitting at the doctor's desk, and he was smiling at me and nodding his head and listening in reasonable agreement. Of course I didn't have the d.t.'s. Naturally, somebody must have come in and moved the body while I was downstairs. The doctor could see that, he said. But now, if I'd just lie down and take it easy for a while—

That made me scream again. Or feel like screaming. I was just opening my mouth when an orderly came in and whispered something to the doctor. He muttered, shrugged. I caught an exchange.

". . . released to his custody. Of

course there are no charges. So . . ."

The doctor turned to me. "Mr. Kenny, this whole thing will be straightened out. Meanwhile, there's a friend of yours waiting to take you home. He's in the outer office."

I went to the door, opened it.

Then I passed out.

The last image impinging on my consciousness was too vivid to bear.

Sitting in the outer office, clad in a bright sports-jacket, checkered scarf, and Calcutta straw hat, was Bunny Hartwick!

He was rising to his feet, walking toward me, smiling.

"There you are," he said. "I was worried about you. I—"

The man I killed caught me in his arms as I pitched forward into a black vortex.

CHAPTER V

AS CONSCIOUSNESS returned, I fought. Fought against it. I wanted to stay down there in the dark, the friendly dark—the dark where there were no voices from Mars, no walking dead men.

I knew we were in a car, but I didn't want to know where we were going. I knew Bunny was holding me upright in the seat but I didn't want to open my eyes and see him. I didn't want to talk to him, because if I heard his voice I'd know. Know that I was crazy. Know it hadn't happened, except in my head. And when those things start happening in your head—

All the while, Bunny was talking to me in a soft voice. "When I tried to get you this morning, they told me at the desk. I rushed down to the hospital and did some plain and fancy talking. Don't know what this is all about, but I'm not going to bother you with questions now, Dan."

That was enough for me.

Hartwick hadn't been in my room at all this morning. And if he hadn't been there, I couldn't have killed him. And that meant I *was*—

"—a little upset," Bunny Hartwick was saying. "So I'm taking you up to Doc Anton's place. You'll like the Doc. Great character. He runs a little private san—rest home, on the edge of town. I've been there myself when the going got tough. I figure a day or two there will put you back in shape. After all, Dan, you're a valuable property. Got to take care of my authors, you know."

I listened, and still I wouldn't allow myself to fully awaken and face him. I sensed vaguely that there was something wrong with Hartwick's attitude. His colloquialisms struck a jarring note. I felt that he was forcing himself to assume a character role.

Then I realized that he must be humoring me.

All right. I was willing to be humored. I was willing to meet lovable old Doc Anton and spend a few days on his nut ranch, recuperating in a soft, downy straitjacket. I was willing to do anything if I could only go down into the black vortex again and forget. Perhaps when I snapped out of it I could figure the score. Something was rotten in Denmark, all right—but at the moment, I wasn't in condition to smell it.

"Here we are. Now pull yourself together, Dan."

The car stopped. I opened my eyes. We were parked at the head of an inner driveway. Behind us, a wide garden, sparkling in the afternoon sunlight. I caught a glimpse of high walls shielding the garden from the street.

Before us was a large, almost imposing brick house; three stories high, modern, but reminiscent of Colonial ar-

chitecture.

Bunny rang the buzzer. The door opened. A tall man, dressed like an interne in the *Dr. Kildare* series, ushered us into a hall.

"Wait here," said Hartwick. "I'll talk to Doc."

I had a qualm. Of misgiving, naturally. A hell of a qualm. It made me tremble, jump forward, grab Hartwick by the lapels of the bright sports-coat. That was something, anyway—to feel solid flesh beneath my fingers. He wasn't a phantom.

"Bunny," I gasped. "It's all right, isn't it? You wouldn't kid a guy, would you?"

Hartwick smiled. "Sure it is. Take it easy, Dan." There was a normal light in his eyes, a reassuring smile. Could this be the same man who had whispered of obeying the voice from Mars?

Of course it couldn't. Because he hadn't whispered it—it was a figment of my imagination.

"You'll explain to this Doctor Anton? Tell him I'm not—"

"Sure. I'll stick by you. Just relax, now."

He turned to enter the room off the hall. I clutched his scarf.

"Don't go yet. I want to tell you—"

HE SHRUGGED me off. And I let go. My mouth closed suddenly, and my hands fell limply to my sides. I stared at his retreating figure and I couldn't move for a long time. I must have stood there for five minutes. All the while I was screaming—but I kept the scream inside my head.

I was very calm when the door opened and a soft voice said, "Please come in, Mr. Kenny."

I walked into the office-study of Doctor Anton and sat down. I was calmer than ever.

"You are Doctor Anton?" I asked.
 "Where is Mr. Hartwick?"

"He left by the other door."

"But—"

I never seemed to get a chance to finish my remarks any more. For Anton cut in. "I advised him to. I felt that it would be better if he did not see you again for a day or so. A painful association, no?"

The "no?" caused me to look at Doctor Anton, scrutinize him carefully. I might be crazy, but I still was interested in good characters.

My scrutiny was well-rewarded. For Doctor Anton was definitely a type. He was a small, dark-haired little man, with a hyperthyroid bulge to his eyes.

Imagine Peter Lorre in a beard and you have Doctor Anton to the life. The accent, however, was missing. It was just as well. I had enough troubles without working Peter Lorre in on the deal.

"How do you feel?" asked Doctor Anton.

"Lousy," I replied. "It might help if you'd ask me to sit down and offer me a cigarette."

Anton chuckled and bustled around the desk. He indicated an armchair and pulled out a pack of straw-tipped Virginia Rounds.

"Mr. Hartwick has just told me an interesting story," he said, watching my fingers tremble as I lit a match.

"I'll bet he has," I answered.

"Naturally, I should be happy to hear the story in greater detail from your own lips," Doctor Anton told me. "That is, if you feel up to it."

"I'm up to it, all right," I snapped. The screaming had died away inside me. I *knew* now that I could speak with some conviction. So I did.

I told him. I began at the beginning and worked clear through to the end. Or almost to the end.

He sat there nodding and bobbing. He didn't take notes with a pencil, but my remarks were indelibly inscribed in his eyes. I told him about the drunken argument, the voice in my room, the visit of Hartwick, Hartwick's death, my trip to Bellevue, Hartwick's rescue.

Doctor Anton put his fingers together and pressed his left hand into his right in the best Charles Atlas manner. Dynamic tension and everything.

"I think I have a key to your—hallucinations," he told me. "Have you been working hard lately?"

That was my cue.

I let him have it right between the eyes.

"No. I haven't been working hard. And I haven't had any hallucinations. Throw your key away."

"What do you mean?"

"I thought I had hallucinations, until just a few minutes ago. Everybody *wanted* me to think I had them. I wanted to, myself."

"But now I know that everything I have told you actually happened. It's all true. About the voice from Mars, Hartwick's visit to me, and the—murder. I tell you, I killed Bunny Hartwick."

Doctor Anton leaned forward. His hand moved towards a buzzer, but I ignored that. Let him ring—I still meant to tell the truth.

"But Mr. Kenny, that's impossible! Both of us saw Mr. Hartwick alive not fifteen minutes ago. He brought you here!"

"If he's alive, then he's a walking dead man," I whispered.

"What do you mean?"

"He left me in the hall, to come in here. And I grabbed him to pull him back. I grabbed him by the neck, and his scarf came loose. I saw what that scarf concealed, Doctor Anton—*Bunny Hartwick's throat, cut from ear to ear!*"

CHAPTER VI

AFTER that, of course, there was nothing left to do but lock me up.

It was a pleasant enough little room, if you don't mind the bars on the windows. I was glad it was on the second floor. The two attendants had enough trouble dragging me up one flight of steps as it was. I was sorry for them, and sorry for Doctor Anton. Obviously he didn't like these violent cases.

But he talked to me through the door and promised to bring Mr. Hartwick to see me, and yes, he would notify the authorities, and he himself would be up to see me tomorrow.

I guess I was ticketed for a hypo and the jacket, but a buzzer sounded in the hall and that seemed to mean something to both Anton and the gorillas who were wrestling with me on the bed.

They left in a hurry, and I stared at the twilight through the bars.

The struggle had been refreshing. I didn't feel jittery any more. Telling the truth had brought emotional catharsis. Even though the truth was incredible.

Or was it? If you accepted the first principle—that a power from another world had entered this sphere—the rest was easy to take.

If Martian entities were indeed operating in a conspiracy to conquer the earth, then these developments were simple enough.

A voice had made me a proposition. Hartwick had vouched for its validity. Both voice and Hartwick told me that the Martian menace was real, unconquerable. I refused to play ball. I killed Hartwick.

Certainly, Martian science, Martian magic, Martian intelligence was probably equal to simple reanimation of the dead.

The invisible entity was in my room when Hartwick came this morning. I'd killed Hartwick, so naturally it upset plans a bit. The body had been removed, revived, and sent after me at Bellevue—for obvious reasons. It did not pay to have even a maniac babbling about a scheme of world conquest; particularly if the babbling could be tied up with the actual disappearance of a man implicated in the story.

Hartwick had to be revived, to make my story completely false. To prove that I was crazy—both to the authorities and to myself.

It was a sound scheme and it had almost worked—until I accidentally saw what was under the scarf.

Now I was here, a prisoner of Doctor Anton. Was he in on the scheme? If so, why hadn't he killed me already? Or to make it more interesting—how soon would he kill me?

I had a lot to think about during the next two hours. I thought on my feet, testing the bars on the windows and tugging at the door.

Definitely, I had a growing feeling that I wanted out.

But bars and door were more immovable than my determination.

Well, there I was. Strictly on ice in a private laughing-academy. What to do?

What would one of my heroes do under similar circumstances? Bend the bars, I suppose. But not for me—I couldn't write myself a grip of steel. As for battering down the door with my shoulder, that wouldn't work either. All I had in my shoulders was the padding put there by the tailors.

Besides, there was nothing very heroic about my actions up to now. I'd blundered into this mess like a dumb cluck, and only made it worse by acting without deliberation. If I'd had

a brain in my skull, I'd never have told Doctor Anton the truth. On thinking it over, perhaps he wasn't in league with the Martians after all. In which case, if I'd only behave, he might release me after I became "normal" and "rational" again.

That was probably the best out. For me.

But was it the best out for—humanity?

After all, I *knew*. Perhaps I was the only man alive who did know of the existence of this thing, this threat hanging over the world. The only man alive who wasn't a part of the conspiracy and still had the facts.

IT WAS my hunch that I wouldn't be alive much longer. Moreover, it was my hunch that the "plan", whatever it was would be breaking soon. The blow might fall. If *they* could reanimate the dead; if *they* had leagued themselves with the best human brains and were employing human help—then the blow might fall swiftly.

The only way to prevent that was to get out of here.

How?

Maybe I wasn't so hot on the brute force angle, but I could use brains. Heroes sometimes use their brains, don't they? It all depends on editorial requirements, I guess. Hartwick was the kind of an editor who liked his heroes to use brains.

But I didn't care to think about Bunny Hartwick right now.

I began to plot. What about the old gag of luring an attendant in here by some ruse, then overpowering him and stealing the keys?

Out. That took muscles again, and my experience with the two gorillas had taught me I couldn't hope to win. Of course, in the usual story pattern, I'd bop the attendant over the head with a

blunt instrument. Only Doctor Anton didn't believe in leaving blunt instruments around in his deep-freeze units for cuckoos. My room contained an iron bed, an iron dresser, and an iron chair, all bolted to the floor. The washstand in the corner was also a permanent fixture.

Wait a minute, now!

I bent and examined the washstand carefully. Sure enough, it had one of those gimmicks in the drain-pipe underneath. I've lost my plumber's union card, and I don't know what you call them, but there was a removable section of the drain-pipe which I could unscrew with my fingers. I did so. In a few minutes I was hefting about four inches of hollow steel, thick and heavy enough to dent the close-cropped skull of any attendant I'd seen.

Now to move over to the door and start a-whooping and a-hollering . . .

I moved over to the door, took a deep breath, and opened my mouth.

Then I let the air out with a gasp.

For a key clicked in the lock, the door opened swiftly and silently, then closed quickly.

A girl stood in my room.

"Shhh!" she whispered. "They're after me!"

CHAPTER VII

EVEN in a bedraggled and much-wrinkled housedress, I saw that she was a very pretty blonde.

I wouldn't have cared if she was a Hottentot.

"You're Dan Kenny?" she whispered.

I shook my head, up and down, up and down. It didn't look so good with my mouth open, so I stopped.

"Come away from the door," she murmured. "I want to talk to you."

"It would be a pleasure," I said.

"But why not wait until we get outside?"

"We can't go outside," she told me. "I've only got the key for this floor. Besides, I'm not so sure I want to go outside just yet. Not until I know."

"Know what?"

"That's why I want to talk to you. To find out whether or not I'm crazy."

"You might ask Doctor Anton about that," I suggested.

The blonde began to tremble. She sat down on the bed and her shoulders moved up and down in a hysterical rhythm.

"Not—him. He's a fiend."

I was glad to hear it. It sounded so reassuring.

But there were other things I had to hear.

"How did you get out?" I muttered.

"You mean—escape?" The girl looked up. She had brown eyes, a snub nose, even a few freckles. A sweet kid. In fact, one of the sweetest I'd ever met in a looney-bin.

"I noticed that there's a detachable section of pipe under my washstand," she told me. "So—"

"—you took the pipe, stirred up a rumpus until an attendant came in, and batted him over the head. Then you stole his key."

She almost smiled. "How did you know?" she asked.

"I was going to do it myself," I answered. And I *did* smile. Maybe she was nuttier than a fruitcake, but I admired her ingenuity. Great minds run in the same channels, and all that sort of thing.

Speaking of great minds—

"How did you know my name?" I asked.

"I heard Doctor Anton talking down the hall," she answered. "He said you had come here with a story about hearing a voice from Mars, and when I

heard that I knew I must talk to you. At once. I must warn you, because I think they will try to kill you soon. Don't let him hypnotize you, whatever you do, and if the voice comes again, don't listen to it."

She got this out in about ten seconds flat. I took her arm and squeezed, hard. "Easy does it," I said. "Relax!"

She blinked, but her breathing gradually subsided. I listened until the respiration sounded normal, then proceeded gently.

"Let's take it slow," I began. "Why do you think Doctor Anton would try to kill me?"

"Because you've heard the voice."

"Have you heard it too?" I asked.

"Yes. I've heard it. Now I know. Up until I learned about you, I thought it was all part of my—symptoms. I thought I was crazy and there was no voice? Don't you see? If we both heard the voice, the same voice telling the same things, then we can't be crazy. And then the rest wasn't a delusion, either. It really happened to me, all of it. And that means—"

"What happened to you?" I asked. "From the beginning, now."

I LISTENED to her with one ear, the other intent for sounds in the hall outside. All was quiet, and her whispered words traced a pattern in the twilight around us. The pattern took shape, grew. I didn't like the shape, or the growth.

But I listened.

"My name is Muriel Esterly. I am—was—superintendent in the Martha Peterson Orphan's Home. It's a private orphanage and school."

Orphanage? Who had told me something about an orphanage? I tried to think, then abandoned my evocative efforts to listen.

"We have about forty boys. It's

small. Doctor Parrish is in charge of it, really; I'm just an assistant. And of course, I teach in the school. That's where the trouble started—in class. When they began writing things on the blackboard."

"Who?"

"Some of the boys. It had to be some of the boys. Though where those children—they're only ten or eleven years old, the oldest of them—ever got such ideas—"

"What did they write?"

"I don't know."

"Don't know?"

"I mean, I've never seen things like that. Some kind of picture writing. You won't understand when I tell you, but it *frightened* me to look at it. Because it wasn't just childish scribbling. It wasn't the stick-arm art that children always attempt with chalk. And it wasn't Egyptian or Indian or anything like that. I know, because I looked it up.

"But I'd come into the classroom in the morning and find those scrawls on the board. Whole series of them—lines and curlicues interspersed with figures. Figures of men with extra arms, and a sun and moon in conjunction, and pictures of animals and knives—I'm not telling this very well, but there was something *wrong* about those drawings. They were *arranged*. They formed a definite pattern. You couldn't look at them without knowing that they were a message."

"Message?"

"Yes. A cipher code message, a whole blackboard-full. Written in a language no child's mind could invent, but scrawled in a childish hand. As though one boy were telling all the others something which we grownups were not meant to hear."

"Did you—?"

Muriel Esterly anticipated my question with an impatient twitch of her

blonde curls. "Of course. I tried everything. Some of my best boys were called in. I treated it as a game. But they were absolutely adamant. I couldn't get any of them to admit that they knew who did it. And they wouldn't even admit that it had been *done*! In fact, one of the boys told me that there was simply nothing on the blackboards at all!

"That was the beginning. I asked Doctor Parrish, of course. I invited him to come in with me, on the fifth day, to see for himself.

"He did! And when we entered the classroom that morning, the blackboard was empty!

"They had erased it. I tried to show Doctor Parrish the marks of erasure—but of course it didn't prove that these queer figures had been erased. He looked at me rather strangely and went out.

"And the boys laughed. Later that day I told Mr. Hartwick, and he laughed, too."

Hartwick!

IT CAME back to me, then. That first evening—God, was it only twenty-four hours ago?—he had been trying to talk to me seriously. What was it he had said when I cut him off and announced my departure?

"For example, I recently ran across a woman who runs an orphanage and she told me—"

So Hartwick figured in this matter, too! Whatever Muriel Esterly was about to reveal, I knew she wasn't crazy. I listened intently.

"Mr. Hartwick is a friend of Doctor Parrish. He's an editor of a chain of magazines here in town. You know, those nauseating, lurid blood-and-thunder things."

I knew, and I winced at the description. Sitting here in a madhouse, she

was denouncing fantasy magazines to me! Life's little jokes, number 131313.

"He comes to visit Doctor Parrish quite often, and brings stacks of his magazines for the children. Naturally, I don't approve of such literature for the young, but Doctor Parrish doesn't object, so he passes them out regularly. The children are quite fond of him."

I didn't think they'd be so fond of him from now on. A man walking around with his throat cut isn't likely to win many popularity contests. But I kept my ears open and my mouth shut.

"Mr. Hartwick was quite interested. He didn't seem to think it at all odd when I told him about the blackboard writing. So that encouraged me to tell him about the other things I was beginning to notice. The games, for instance.

"During the recess periods and the yard-play after school, I'd happen by and see that some of the boys were playing strange games."

"Strange? How do you mean?"

Her hands fluttered helplessly. They didn't flutter like wounded birds. They fluttered like hands, helplessly.

"I can't explain it at all well. Except that when you're around children a lot, you make it your business to know them, you subconsciously come to know the games they play. Hide-and-seek, Red Light, all the others. But now some of them were playing *new* games. They would squat on all fours and run around the yard while others followed them and kicked at them.

"For a while I suspected that the squatting ones were emulating prisoners-at-war, but I soon discovered my error. Because they were talking queerly, too. Gibberish. Utter gibberish. But gibberish that sounded like those blackboard scribbles looked."

It was a poor sentence, but I caught

the thought. Caught it and didn't like it.

"Then, all at once I realized the truth. Realized that whatever they were doing, it wasn't *play*. They didn't smile or laugh or shout. They were serious, and they whispered. They were *learning* something."

That's where Muriel broke down.

I consoled her and shook her and listened, all at the same time.

"I can't tell you," she sobbed. "It just got worse and worse. They wouldn't talk to me any more, none of them would. And at night they would whistle and the whistles were signals. Doctor Parrish thought there was something wrong with *me*. They hid it from him, of course.

"But I told Mr. Hartwick and he seemed to understand. That is, until I came to the part about the voices."

This was what I was waiting for, too. I paid close attention.

"You see, I had to know what was going on. So the night before, I waited until they were all in bed for the night, up in the big dormitory. Then I climbed up to the transom and eavesdropped. You see, I thought that if somebody had introduced a secret society or a 'club' of some kind, they might hold a meeting after lights were out. They might talk then.

"But all I heard was a lot of whispering sounds, and then a sobbing. The sobbing suddenly became a shriek. I looked over the transom and saw them. There were five or six around one bed and they were—they were trying to kill Peter!"

It was the cue for another breakdown, but she controlled herself. Watching her swallow I said to myself, this girl has guts. And answered, inwardly, she'll probably need them!

Aloud, I said, "Peter is one of the boys?"

"Yes. A special favorite of mine. He's only eight, and the cutest little towhead. But—"

A LOOK came back into her eyes, a quaver came into her voice, and she went on, slowly. "They had him down on the bed, and Tommy, he's the oldest, almost twelve, was swinging a water-pitcher at his head, and I jumped down and jerked open the door, and they scuttled away and I picked Peter up and—"

She couldn't stop until I grabbed her shoulders.

"I know," I whispered. "It must have been pretty dreadful."

"I carried Peter, still sobbing, into my own room. And he told me about the voice. Doctor Parrish wasn't in yet, or he would have heard it, too.

"They were killing Peter because he wouldn't obey the voice, he said. What voice? The voice that came into the room every night and whispered to them while they were asleep. It was a voice from another world, and it promised them things. Promised them that if they learned certain things now, they would grow up to be big and strong and powerful. The voice told them that it would come down and play with them. But it couldn't come unless they would go to sleep and let it in.

"I asked Peter what he meant by letting it in, and he said that Tommy and lots of the other boys let it into them, so that when they woke up in the middle of the night, for a little while they would act strange, as though the voice were inside of them. Then they would go down and write on the blackboard and they would wake up the others and tell them about new games to play and teach them to talk in a funny way. After that they wouldn't remember anything about it—about the voice being part of them, that is."

Muriel glanced up. "Do you know what he was trying to tell me?" she whispered.

"Yes," I said. "Demoniac possession. The entrance of another spirit into the body of a small child."

"Do you understand how I felt then?" the girl panted. "Hearing these things from the lips of an eight-year-old boy? It was mad, it was fantastic—but they'd tried to kill him because he wouldn't join in.

"He wouldn't learn the language, or the games, or the signals. He'd threatened to tell me. And so they were going to kill him. Do you understand?"

"I understand."

"Mr. Hartwick didn't. He looked at me very strangely. Then he mumbled something and went off to speak to Doctor Parrish. I wanted to see Doctor Parrish myself, before the day's classwork began. I wanted to tell him about Peter, who had slept the rest of the night in my bed. I don't know what I expected him to do—but I knew we had to do something.

"So I followed Mr. Hartwick and broke in on his meeting in Doctor Parrish's study. And I told Doctor Parrish just what I'm telling you, now.

"They kept looking at each other, and then Mr. Hartwick suggested we go and find Peter.

"We did. But Peter wasn't in my room. He was in class, with the other boys. And when we went in everything was all right. Do you hear me? Peter was smiling and happy, and when I asked him to tell us about last night he laughed, and when I repeated my story in front of him he said I was lying, and Tommy and the other boys all said I was lying. They said there were no games, and no whistles or signals and no blackboard writing or anything.

"So Mr. Hartwick said perhaps I'd

better come along here with him and meet Doctor Anton."

I FROWNED into the darkness. The rest I knew. She had come here and they had convinced her that she was screwy and locked her up. Here we were. Two birds in a gilded cage.

"At first Doctor Anton was very kind and polite. He let me go downstairs to eat with the orderlies—there are three of them here, you know.

"But after I heard the voice, everything changed."

"You actually heard the voice?"

"Yes. It came at night, to my room. It whispered to me a lot of things about Mars."

Right back where I started again. Mars.

"Let me tell you now," I suggested. So I told her that the voice had whispered that her suspicions at the orphanage were correct. Something was talking to the kids, something was even taking temporary possession of their bodies. Entities from Mars were planning to conquer the earth. And part of that plan involved the training of children. Get them while they're young. Get orphans, without family ties. Train them for the new world to come. Teach them the language, the secrets, the elementary principles of the new science, the new magic.

This last was just a guess. But she nodded.

"And it offered you a chance to participate, didn't it?" I asked. "And you refused. So you told Doctor Anton and he locked you up."

"Not just yet." Muriel whispered hoarsely and leaned forward. "First he hypnotized me. When he learned that I had refused, he hypnotized me. At the time I believed him when he said he was trying a psychiatric technique. Now, of course, I know that he

was in league with the voices. Because he hypnotized me and made me do something."

"Do what?"

Muriel turned away. "I can't tell you that. But after it was done, he locked me up.

"I thought I was crazy, until I heard him talking about you tonight, in the hall. And now—"

"What's that?"

Footsteps sounded outside. They didn't halt before my door, but padded on down the hall.

"I must go," the girl gasped. "I'll slip the key back in his pocket."

"Leave this door unlocked," I commanded. "I'll come for you after awhile."

She nodded, raced across the room, and whirled out in the darkness. A second later I heard the lock click again. She'd locked me in.

"Muriel!" I whispered. "Come back."

The hall without was utterly silent. The girl was gone. Somewhere up the corridor a voice began to howl. A laughing hyena joined in the chorus from upstairs. In a moment the place was shaking beneath the ululating impact of madness given tongue.

I went back to the iron bed, threw myself down on the sagging mattress, and drifted off to dreamland as my demented companions gibbered their serenade.

CHAPTER VIII

"WAKE up!" The voice barked in my ear. A hand shook my shoulder. I blinked, opened my eyes to the sunlight.

A fine hero I was. Instead of quickening into life at the first intimation of a tread outside my door, I let a heavy-footed attendant lumber into my room

and grab me around the neck without even becoming conscious.

I woke up now with a start as the attendant bent over me and mumbled, "How about some breakfast?"

It wasn't a bad idea, at that.

He brought in a tray, propped it up against my knees, then sat down in the iron chair and watched me eat.

I breakfasted, wondering whether or not to reach under my pillow, drag out my pipe, and part his hair with it.

Better not. Muriel had said that they only carried keys for the rooms of a single floor. Somebody would be waiting downstairs, in all probability, to block my exit. Besides, if I left now, what would happen to the girl? More important, what would happen to me?

I'd be free, for a while, but the moment I tried to tell my story I'd get the same reception I received from the hotel dick or the boys at Bellevue.

No, there was only one way out of this mess. I had to get to Doctor Anton and make him sing.

How?

The attendant stood up, scratching a bristly chin. He yawned, blinked, shuffled his feet. An engaging performance all around.

"Come on," he said. "Doctor Anton wants to see you now."

I almost kissed him. Then I remembered the bristly chin and let it go. But I did flash him a great big smile.

"Let's go," I said, climbing out of bed. My clothes were a trifle wrinkled, but he didn't offer any valet service. Doctor Anton would have to endure my sartorial disarray somehow. And a few other things, too.

We took a stroll down the hall. I tried to sneak a look into the other cells as we passed, but I seemed to have mislaid my X-ray vision this morning. I didn't see Muriel, or the hyena boys

of last night's concert.

We tripped lightly down the stairs, and there I was, back in Anton's office once more. The attendant closed the door behind me, and locked it. I made a dive for the desk.

Then another door opened, I jammed the desk drawer shut, and dived for a chair. I was sitting very quietly as Doctor Anton stepped into the room.

Anton wore a new white jacket, but he still had the same old beard. He had the same old smile, too, but it didn't impress me so favorably today.

"How do you feel this morning, Mr. Kenny?" asked Anton, as he sat down and went into his finger-pressing exercises.

"Very well, thank you."

The fingers intertwined on the desktop.

"And how did you enjoy your little visit with Miss Esterley?"

I gulped. "Uh—oh, *that*."

Doctor Anton shrugged. "I'm sorry about that, Mr. Kenny. She wouldn't have bothered you if it hadn't been for a bit of carelessness on the part of one of my orderlies. I have taken steps to see that there will be no more such carelessness."

This I could well imagine. But I said nothing.

"A pitiful case, that girl." Doctor Anton didn't look as though he thought it was so pitiful. Delusions of persecution, you know."

"She sounded sane enough to me," I answered.

"Sane? But my dear sir, she's a murderess, and—"

"Murderess?"

"Oh, didn't she tell you that?" Anton got up and reached around to open the top drawer of a file, labelled *A-F*.

"It happened after she came here," said Doctor Anton, rummaging around in the files. "She escaped, went back

to the orphanage, and killed a little boy named Peter."

I KNEW it was a lie. But at the same time I remembered something Muriel had told me at the last. "He hypnotized me and made me do something." "Do what?" I had asked. And her answer, "I can't tell you that. But after it was done, he locked me up."

This exchange moved through my memory as Doctor Anton went on talking.

"Fortunately, your friend Hartwick was on hand when the—tragedy—occurred. He understood and showed remarkable presence of mind. Instead of turning her over to the authorities, he brought her back here. You see, she was not responsible, poor girl. Here she can be cured. But the shock of arrest, a trial, and subsequent incarceration in a state asylum would permanently derange her. I do not hold with the methods employed in state institutions."

I was willing to bet he didn't. Doctor Anton had his own methods, and the state institutions wouldn't care for them, either.

"So that's what happened," I said.

"That's what happened." Doctor Anton smiled, sorrowfully, wistfully.

I was just as wistful as I stared at him. "The hell it did," I told him. "Muriel Esterley never killed anyone in her life. You hypnotized her, allowed her to escape, planted the suggestion in her mind that sent her to the orphanage. She probably believed she was killing somebody—you'd see to that. And Hartwick didn't just "happen" to show up there and bring her back, either. It was all part of your damned scheming. Nobody died, Doctor Anton."

"Oh, didn't they?" He turned from the file, extended a newspaper clipping.

"TRAGEDY AT ORPHANAGE" I read. The story was simple. Peter Ericson, age eight, found strangled in room of Muriel Esterley, former assistant superintendent . . . Miss Esterley had been missing for a week . . . police seeking clue as to her whereabouts . . .

There was a lot of it. And it made me shake.

"You see?" shrugged Doctor Anton.

"Yeah. I see. And it doesn't prove a thing. If the child died, you killed him. Or Hartwick. Or one of the others. And arranged it so that the police—and Muriel—would believe she had done it. You can stick that newspaper clipping in your files, Doctor Anton. I've found out what I wanted to know. You're in on this Martian deal, like the others."

Anton sat down. He began his finger-pressing act once more.

"I'm sorry to hear that, Kenny. Yesterday you had some delusions about a voice from Mars and Mr. Hartwick. Another persecution complex. Today your condition seems to be worse. Now I am included in your list of imaginary enemies. I am afraid there is only one thing to do. We must resort to psychotherapeutic technique. A little mild hypnosis—"

"You want me to kill somebody, too?" I grated. "To hell with that noise."

The answer lacked dignity, but carried conviction.

"You can't hypnotize me unless I am willing to cooperate," I told him. "And I'm not cooperating. I'm not going to touch any food, either. You can't shoot any dope into me. I'm on guard now, Anton. You can't harm me."

"Oh no?" The hands stopped playing. A pudgy finger pressed a buzzer. The assistants would be on their way in a moment—

I PULLED a gun out of my pocket and showed it to Doctor Anton. He examined it curiously, noting that the muzzle was directed at his fat little belly.

"Found his in your desk drawer before you came in," I explained. "It seems to be loaded. When your gang gets here, I'd advise you to shout at them through the door and tell them not to disturb us."

Anton looked into my eyes, looked into the muzzle of the gun, sighed, nodded, and fell silent. Footsteps echoed outside the door.

"It's all right," he called. "I don't need you."

The footsteps moved off.

Anton shrugged. "Now what do you intend to do?" he asked.

"You are coming with me," I ordered. "You will release Miss Esterley and myself. The three of us will step down to police headquarters and I'm going to do the talking."

Doctor Anton stood up. "Very well. But I must warn you. It isn't exactly safe for you to enter police headquarters. You forget that you're a murderer yourself."

"What do you mean?"

"You killed Mr. Hartwick. Bunny Hartwick."

I gasped. "Wait a minute. Yesterday you pointed out to me that Hartwick was alive. You said I couldn't have killed him, because he brought me here. You said it was a delusion. You said—"

"That does not matter. Would you be convinced if I showed you the body?"

"Yes," I whispered. "But no funny stuff."

Doctor Anton moved toward the second door. I had the gun ready. I was prepared for any trap lying beyond that doorway. None of these

damfool hero blunders for me. I'd written too many to be taken in by one just now.

We entered the room beyond. It was, at first glance, a small laboratory with closets lining the walls. Then, as I stared more closely at the stone slab serving as a table, I revised my judgment. This was no private laboratory—it was a private dissecting room and morgue!

I had been prepared for any trap, but not for this. Not for this, lying cold and stiff on the table, lying cold and stiff in death, with the handle of the paper-knife still buried in the throat.

Rigid with *rigor mortis*, the body of Bunny Hartwick lay stretched on the stone table, and I met the ghastly grin of the man I killed!

CHAPTER IX

I DIDN'T grin back.

There are limits you know. First I was crazy, then I wasn't crazy—it had been going on this way for thirty hours. The hand holding the gun began to tremble. I looked at it. But I couldn't make it stop trembling. The gun wobbled.

"Put it down," murmured Doctor Anton.

I put it down.

"Look at me," said Anton.

I looked at him.

Now I'd told him myself it couldn't be done. According to all the orthodox tenets of medical science, one human being cannot hypnotize another human being against his will.

I was confident of that. But—

"Look at my eyes," Doctor Anton whispered. "Look into my eyes. Look deeply."

And I looked.

For the first time I really stared at

Anton's hyperthyroid eyes, and as he directed, I looked *into* them.

I saw . . . the voice.

The shell, the body, was Anton. But I saw the voice. And I heard the voice.

Behind those eyes was an incredible emptiness that was not empty, a silence that was not still, an absence that constituted a presence. Enigma, but a chilling, compelling enigma.

I began to understand, now. Doctor Anton was a masquerader. Hartwick must have been one, too. In reality it was the entity, the voice. I began to understand, but went no further.

For the eyes held me, transfixed my gaze, transfixed my thought.

One human being cannot hypnotize another against his will—but what was hypnotizing me was not a human being!

My body fell away. Anton's body fell away. The room fell away. There was only my brain, and those eyes. The eyes of the entity, boring into my being. The roaring around me was the mighty sussuration of empty space through which I plunged.

I felt the weight of a force—a force strong enough to conquer earth—directed against my psyche. And I succumbed. I knew that the voice was speaking, somewhere, and that my body was moving out of the room. We were climbing stairs, walking down the corridor of the second floor. Doctor Anton had the gun and he was leading me—but both Anton and I were just pictures. The real Anton, the real me, were still locked in a battle of eye and brain.

And now we were in a room and there was somebody else there, too, and a hand belonging to Anton's body was putting a gun in a hand belonging to my body, and a voice was telling me to shoot the other occupant of the room,

and all the while the eyes and brain hung out there, a million miles away in roaring space. So that it did not matter what my body was doing at all—nothing mattered as long as I was away out there—and I raised the gun—

Empty space split asunder under the echo of the shot. The reeling universe dissolved as the eyes winked out. My brain hurtled back a million miles into my skull.

I opened my eyes.

Muriel Esterley stood at my side. In her hand she held the gun she'd snatched from between my fingers. A wisp of smoke coiled from the muzzle. Muriel was staring at the door.

The white-coated figure of Doctor Anton was stumbling out into the hall. A growing red stain had appeared between the shoulders.

There were little crimson stains on the floor, too—

"Dan! Are you all right?" gasped the girl.

"Yeah. What happened?"

"You came in with him and he gave you a gun. He told you to shoot me. He kept staring at you and you looked as if you were walking in your sleep. You took the gun and pointed it at me. I grabbed it from your hand and pointed it at Doctor Anton, and it went off."

"Hold it!" I grabbed her and shook her shoulders until her eyes opened again. Then I turned. "Come on. He went down the hall."

We followed. How Doctor Anton had ever made it down the stairs I'll never know. When we found him, back in the private morgue, there was a hole in his chest big enough to hold a cannon ball.

He'd slumped down on the floor next to the stone slab, and he was dead, quite dead. In fact, he was a little worse than dead. His skin was blue and cold—blue and cold as if he had

been dead for months rather than minutes.

The thought hit me then. "Maybe he has. Maybe he *has*."

Then I turned away. I had to consider Muriel. Standing there, probably looking at the body of Hartwick up on the table—

I glanced at her. She was quite calm. Good girl. She looked at the stone slab stolidly.

I looked, too. But not stolidly.

For Bunny Hartwick's body was gone!

CHAPTER X

IT WAS lucky I sent her out of the room. "Search the files," I commanded, hoarsely. "Dig up everything you think will be interesting. I'll look in here."

She left.

She could search for documents. I had other things to search for.

Those closets, now: Hartwick's body must be in one of the closets lining the walls.

I opened the nearest one.

A body fell out.

It wasn't Hartwick. It was the corpse of a woman in her early forties. She was wearing a tweed suit. She had been dead for perhaps a month. There was a refrigeration unit coil in the closet, and that had helped.

I opened another closet, and another. I found bodies all right. Eight of them. They were propped-up, glassy-eyed, cold as mackerel. Six men and two women. I didn't recognize any of them. I didn't care to be introduced, either.

There was a picture running through my brain, leaving its ghastly little footprints behind to scar my sanity. A picture of Doctor Anton standing in this room, with the closet doors open,

looking at the bodies lined up against the refrigeration coils. Looking at them, and picking out a choice. The way a man chooses a suit, or a woman selects a hat. "Which body shall I wear today? My business body or my sports body, or just a casual body to lie around in."

It was like something out of the Oz books. For my money, it could just as well have stayed in them.

But here I was, and here Hartwick wasn't. I knew, now. The dying shell of Anton had dragged itself down here in order to transfer the entity to Hartwick's body. Hartwick's body had gone forth again into the world.

I looked around the room. Cased the joint. Saw that it was built for my purpose. Then I did something, and ran out of there, slamming the door behind me.

Muriel rose from her inspection of files and desk.

"These files are empty, blank," she exclaimed. "Just this—" And she looked away as she held out the orphanage clipping. I took it, crumpled it up. "Never mind. I've seen it. It's a fake." I hoped my voice carried conviction.

"These files are a blind, then," I went on. "He—or it—must carry all the information in his head. But where did he keep the dope on all the patients?"

"There are no patients."

"What?"

"I was the only one. I know. Those attendants told me."

"But last night—I heard them howling—"

"The attendants did that. When I got back, the fellow I'd hit had come to. He tied me down and went out. I could see them down the hall, talking to Anton. Then they went and howled before your door. To fool you. You

see, this isn't a real sanatorium at all."

I SAW, all right. I wondered if some of the bodies in the other room had once belonged to actual patients.

"Where are they now?" I snapped.

"The attendants? I think they've gone." Muriel nodded. "The noise would have brought them in long before this."

"Good. Then I won't have to warn anybody, if the joint is empty."

"Warn them about what?"

"I've just set fire to this dump." I pointed at the door. Smoke was already curling out from under it.

I grabbed Muriel's elbow. "Let's go," I said. "We must get out of here."

She grabbed something from the desk.

"What's this?"

"A diary, I think. I found it in the desk drawer. There was nothing else."

"Good. Come on, then."

I stopped once, in the hall, to set fire to some drapes.

Muriel didn't ask me why I was burning the place down. She didn't need to.

We managed the lock on the front door and headed down the walk. But the gateway door proved impossible as a means of egress.

Smoke had begun to billow from the windows of the left wing.

"Around the back," I panted. I led her across the lawn, through the back yard. Weeds choked the lawn. Evidently the grounds had not been tended for a long time.

One patch of earth, down in the corner, was curiously bare. The grass was seared away in a wide swath, and within the swath, ploughed earth was scarred and blackened as though a pit had been dug and a fire built within it. But there was no charcoal. Look-

ing closely, I seemed to see a series of convolutions whorling the sides of the pit, as though something had bored down and into the earth.

Then Muriel hurried me along. We reached a latched gate in the high wall at the back. The gate was locked. The lock was rusty. I was desperate.

The lock broke, and my fingers nearly followed suit. But then we were out, and running down a pathway through a vacant stretch of wooded land. We reached a road and crossed it, ran down another street. Smoke smudged the horizon behind us. The place was burning, and I was glad.

The bodies—the bodies used in a grisly masquerade—were gone forever. But Hartwick still walked . . .

CHAPTER XI

WE SAT there as dawn filtered into the dingy double room of a cheap hotel downtown. Our faces loomed pallid in the sickly light, but we felt no weariness. There was only a gnawing dread and a strange strength born of panic.

Muriel looked at me. "I don't understand it," she said. "There's nothing wrong with that diary. Nothing at all. Doctor Anton talks about his daily work quite openly, and about his patients, too. But we know he had no daily work and no patients. It doesn't add up."

"Yes it does," I said. "The last entry in that diary is dated two months ago."

Muriel's eyes registered blue bewilderment.

"Don't you get it? Two months ago, Doctor Anton died. Two months ago the entity—whatever it is and wherever it came from—killed Anton and entered his body.

"The patients were gotten rid of in

a hurry. That private sanatorium became the lair of the voice from Mars. We must presuppose intelligence transcending all mundane order; intelligence great enough immediately to orient itself on earth. The voice in Anton's body passed itself off as human, masqueraded as Anton.

"Now we can gradually see a pattern. This entity's plan—as announced to us—involved the conquest of the earth. He must have contacted Hartwick, and others. At least, Hartwick told me so, when he was still—alive.

"What the plan is, we still cannot guess; but there are hints. Gradually the entity was seeking to build up a group of human allies. Renegades like Hartwick, and weak, susceptible minds—like your orphans."

"You mean?"

I told her about my theory of the orphanage being used as a sort of "training school" for the implantation of alien ideas.

Then I broke down and told her about the bodies I'd found.

She took it calmly.

"Now we can see that it was playing a double game with Hartwick and the others. Trying to make them believe that it was not one, but many creatures. By changing bodies frequently, it gave the illusion of having many human allies already. And probably, wearing the different forms at different times, it approached a number of groups and individuals—just as it tried to approach me.

"What happened to me is intelligible now. The voice must have come from the fire-escape, after all. One of those bodies housed it as it whispered to me in my drunken stupor.

"The next day, when Hartwick visited me, the entity must have accompanied it in a human body, lurking in

the background to await the outcome of our interview.

"When I accidentally killed Hartwick, the entity left its other human body and entered his, in order to remove it as evidence from the hotel room.

"When I went to Bellevue, the entity—now posing as Hartwick—brought me to the sanatorium. Remember, I didn't see Hartwick and Anton together. Hartwick went into the office and Anton came out to greet me, saying my friend had left by another door. In reality, the entity switched bodies in the morgue room.

"Obviously, after you escaped and talked to me, both of us were ticketed to die. The entity hypnotized me, and I almost shot you. I suppose I'd have been turned over to the police if it had worked out that way.

"Instead, you killed Anton's body and the entity managed to enter Hartwick's and escape."

I SHUT up, then. I was fully conscious that this was no time to be making with the logical explanations—with the whole outcome of the story in midair.

The outcome of the story, hell! What interested me was a much more vital matter—what was going to happen to us with that thing still loose on the world?

Muriel wasn't helpful.

"But I still don't understand," she sighed. "Where did the entity come from? How did it enter into Anton's body? What plan has it for conquering the world?"

I grunted. "Continued next week," I said. But the questions haunted me. I had the usual visions of the destructions of the earth. The Empire State Building falling down. The blowing up of the White House. An army of

rocket-ships descending from Mars, and the warriors of the Red Planet—a bunch of crimson spider-men with goggled eyes—rushing around in the ruins and grabbing up a lot of half-naked women for souvenirs.

I would be somewhere in the back-ground, a damp forelock plastered against my brow as I operated a ray-gun and tried to save Muriel from the clutches of a green monstrosity with three heads—Ex-pectah-Rayt, High Priest of Spittoon.

Such was my vision. But it was blotted out by an uglier reality.

Hartwick. Hartwick's body, gaunt and white, striding about the streets on a mission of death. Killing again and again, until it had many more bodies to enter. Finding a new lair, spinning a new web. Growing and growing, aided by misguided human tools. Gradually finding men in key spots, usurping positions in our highly mechanized world until a few hundred slaves in the right places, throwing the right monkey-wrenches simultaneously into the right machines at the right time, could actually plunge the planet into chaos.

The earth could really be conquered, that way. It was simple—if you transfer bodies at will. And with human help, it could be done soon. In a few weeks, perhaps.

And it would be done, unless—

"We've got to figure this out," I stormed.

"We can't go to the police." Muriel's voice broke. She was thinking of the clipping, of Pete—

"That's out," I snapped, hastily. "No, there's only the two of us, against it. Against whatever is in Hartwick's body."

I stopped. Then I said it, again. "Hartwick's body!"

"Yes?"

"Where would that body go now?"

"Why—"

"To the orphanage, of course. Don't you see? It will go back to the Martha Peterson Orphan's Home and start anew from there. That's its other base, its other lair."

"But why do you think it will go there?"

I stared at Muriel. I had to say it, but the words nearly choked me. "Because it thinks we will go there. And before it can go on, it must dispose of us. It will go to the orphanage to kill us."

"And when it comes—we must be there!"

CHAPTER XII

BRIGHT morning sunshine streamed into Muriel's private office at the Orphan's Home. I sat at the desk, trying to find a gun or a paper-knife, or something. Right now, it looked as though I'd have to fight my battle with a hairpin and two erasers.

"I wish Doctor Parrish were here," said Muriel.

"Lucky he isn't or we'd never have sneaked in," I grunted. "Never mind that. Arrange those flowers. We haven't any time to lose."

"But these flowers—"

"Do as I say," I snapped. "And don't interrupt. I'm thinking out loud. I plot better that way."

Muriel bent over the yellow blooms as I mumbled to myself.

"One point is definite. There is one, and only one entity, and it's in Hartwick's body. I've got to count on that."

"Secondly, it appears the entity can change bodies only if the corpse it enters is newly dead or preserved in some way."

"Thirdly, and most important—in

order to make a change, the two bodies must be in the same room. When Anton's body was shot, the entity had to drag the dying form downstairs until it was in the same room as Hartwick's corpse. Why? Obviously because the entity cannot survive in a bodiless state, and the exchange must be made at once.

"This same example would tend to prove that if you were to kill a dead body housing the entity—kill it *again*, that is—the entity cannot remain in it. It must seek another corpse at once. That's important."

"Now, when Hartwick comes here—if I only had a gun—"

"*What would you do?*"

I whirled. Muriel whirled. The room whirled.

The corpse of Bunny Hartwick stood in the doorway. I saw the gun I had been searching for—in Hartwick's hand.

It directed the two of us to the center of the room. We stood posed against the background of yellow blooms.

Hartwick's corpse shut the door. We were trapped. The small room was close, stuffy. A heavy scent filled the air. It came from the flowers—and from the corpse.

I began thinking of all the stories I'd read or written, where the villain holds the hero at bay with a gun. He usually begins to gloat over them and spill his guts about what a clever guy he is. Then the hero pulls a blackjack, or the cops arrive in the nick of time.

Only the cops weren't coming, and I had no blackjack—and the thing in Hartwick's body wasn't willing to play ball. I saw a cold, dead forefinger squeeze against the trigger—

"Wait a minute!" I gasped. If it wouldn't talk, I'd have to. I began

to tell it, in a few words, just what I knew; knew and guessed.

The corpse of Hartwick stood there and I talked on, staring into those empty eyes through which blazed the burning essence of the alien entity itself.

"You see," I concluded. "I know it all. There are only two points I don't understand completely. One of them I can guess. You hypnotized Muriel here, and sent her out. When she returned, you told her that she had killed little Peter. But actually, the way I figure it, you had Hartwick kill Peter, to shut him up about the orphanage episodes. Then you planted clues leading to Muriel. Right?"

THE corpse-head bobbed solemnly in agreement. It was hideous to watch, but the smile that came to Muriel's quivering lips repaid me. At least she'd die knowing she was innocent.

The gun came up again—

"One thing more," I panted. The air was sticky, and an odor welled. "Just one thing more. The most important thing. I know you cannot exist without a human body, and I know that you cannot enter a living body. How did you ever take possession of Anton's body?"

The voice came, then.

"When I came from—"

I heard the word. I knew its meaning was "Mars." But the word was not "Mars" nor anything intelligible to human ears.

"You see," the voice hissed, "I was condemned."

"Condemned?"

"Condemned to extinction for a crime. My body was destroyed, but you cannot destroy the essence. We are eternal. So the essence had to be exiled, too. As essence, I was placed in a rocket-tube and catapulted into

space.

"What you call 'Chance' caused the rocket to land on earth. In landing, it burst.

"You can guess where it landed, can't you? In the garden back of Doctor Anton's sanatorium. He was in the garden. The force of the explosion, right next to him, caused concussion and death. As I was liberated from my metal shell, I flowed into Anton's dying body. The rest you know."

I knew, now. I remembered our flight through the garden, and the peculiar scarred hole in the earth. That's where the rocket shell must have landed, the rocket shell that had brought the entity from Mars. And now that entity, in Hartwick's body, was—

I saw the finger press, and knew that this time nothing would intervene. The gun was at my breast, the finger squeezed the trigger, and—

"Achoo!"

It had come, and I was ready. I lunged across the room as the creature shuddered in its sneeze. The gun barked, but the bullet went wild. Then I went wild, and wrested the weapon from the corpse-cold fingers, twisted the muzzle towards the sneeze-racked throat, and fired. One, two, three shots blasted into the contorted body at close range. And Hartwick's body fell.

"Look!" gasped Muriel.

CHAPTER XIII

IT WASN'T exactly a sight for sore eyes.

From the riddled body of Hartwick, writhing in a second death, a milky phosphorescence welled in a coalescing stream.

I thought of de Maupassant's *Horla*.

I thought of screaming, too.

The image wavering in midair looked like a figure on a photographic negative. But what a figure!

There was a central 'blob, and attached to it, four pseudopods. Two appendages extended from the lower part and two rose from the middle of the trunk—if it was a trunk, and not just a great head. It might have been a head. I saw a huge maw, with serrated edges that were not lips. The eyes hung on twin stalks from the upper pseudopodic arms, and there seemed to be grasping suckers lining the inner surfaces of the lower appendages.

The whole body glimmered before my eyes, and I saw the entity—the voice—the essence from Mars.

It swooped closer to the desk. I saw the milky strands dissolve against its surface, as though seeking to filter into the desk. Then the figure turned and dashed against a chair. It moved sluggishly, but I somehow had the impression of a frantic haste.

The thing was seeking another haven, another shape to enter.

Then it flowed toward Muriel, and she cried out as the phosphorescence enveloped her. But it could not enter inanimate objects, or the living—

The jelly-like blob hung motionless for a moment. Then, abruptly, its transparency increased. The entire form seemed to dissolve into strands, then cobwebs. I saw it fading, breaking up into particles. The particles became motes. The motes became atoms. The atoms disintegrated. The ghost of a smoke-ring floated up towards the ceiling and vanished.

The entity was gone.

It was the cue for Muriel to pass out. It was the cue for me to remember that I was a hero, take her in my arms, and revive her.

We played our parts well.

Until, at last, I was murmuring to her, "It's all over, baby. Pull yourself together, now. It's all over."

Muriel opened her eyes and gave me the business. It should have made me happy, but I scowled.

"What's the matter, darling?" she whispered.

"I don't like the ending," I said.

"What ending?"

"Well, if I was writing this and putting myself in the role of hero, I'd have figured out a slick scientific trick to beat the villain and have the world. But my method was so crude." I shrugged. "Still, it was the only thing that would have worked, I guess.

"The entity was too clever for us. I

couldn't cope with its ultra-mundane intelligence. But there was one thing it didn't know that, I did know.

"It was wearing Hartwick's body, and I knew more about Hartwick than it did.

"So that's where I took a chance. I made you put all this goldenrod around, and stalled here until it sneezed. And just in time, too. Lucky for all of us Hartwick suffered from hay fever."

I sighed again and shook my head. "As an editor, the real Hartwick would never have approved of it. As I write, I don't approve of it. But damn it all—hay fever has just saved the world!"

THE END

YOU CAN'T BEAT NATURE!

By
CHARLES RECOUR

IT HAS been said a thousand times, but it's still true: *you can't beat Nature*. For every invention and device that you can point out that modern science and technology has devised, Nature has devised one a few million years ago. One of the best men to ask about that is Christopher Coates, a noted authority on the eel.

Mr. Coates wrote a paper for a national magazine not long ago in which he disclosed some rather "shocking" facts about the electric eel. The electric eel has been a subject for study for a long time but not much was ever learned about it because the men who could best study it weren't interested, that is, the physicists. It is a known fact that severe electrical shocks can be generated by electric eels, but the strength and duration of this power was completely unknown until Mr. Coates enlisted the aid of some modern instruments. In his original study of the fish (?), Mr. Coates tried to get eels to light electric light bulbs or to move the needles on electrical measuring instruments like the ammeter and voltmeter. Nothing happened, or at best the gauges were burnt out. By accident, he dropped some neon bulbs amidst a squirming bunch of eels and behold!—they lit up like Christmas trees. There was the secret of the thing! A neon bulb will light up under voltages of very short duration whereas an electric light bulb takes an appreciable portion of a second to get hot. So from instantaneous lighting neon bulbs to cathode ray oscilloscopes was but a logical step and the net result was that

Mr. Coates learned that an eel generates high voltages—about 350—of very short duration—a few thousandths of a second—but great frequency—several hundred times per second. With this knowledge the study of the electrical properties of the eel became simple.

The eel is, in effect, Nature's first wet-cell. It consists of vast numbers of low voltage electrical generating cells similar to the conventional "dry battery" which by some not-yet-understood mechanism connects these cells in series to produce the high and shocking voltage. It is as if there were little switches built into the eel's body which connected these cells in series almost at once.

Furthermore, the electric eel, along with the bat, get the credit for being the first radar sets. From the rear section of the eel's body are sent out a series of electrical impulses traveling at the speed of light. On either side of the eel's head are two little knobs or "receivers" which pick up these impulses after they have been reflected from nearby objects, and with this arrangement, the eel is perfectly able to orient itself with respect to the direction in which it wishes to go. That is almost precisely how a radar set functions. When two reflected impulses are received by either the eel or the radar set, of equal magnitude, both set and eel are midway between them. It is incredibly ingenious. For a moment it appears as if the Great Designer must have been an electrician. Mr. Coates makes it clear that many Old Wives tales

have been written about the electric eel. They are *not* caught by putting horses in the middle of a stream bearing them and allowed to shock the horses until their "batteries" are exhausted. If this were the case you would wait a long time before they were out. Eels have the ability to go on shocking hour after hour with no diminution in intensity. The voltage is always there.

If it decreases after a time, all that is necessary is to give the creature a five minutes rest and it

is as good as new. What wouldn't the makers of cells and batteries give to know the secret? It is a serious matter. Mr. Coates points out that a surprising amount of research is being done on this very score. But regardless, so far nothing is known of the wonderful and mysterious way in which the cells of the eels' batteries work—how they generate "juice." There are some inviolate secrets of Nature which she absolutely refuses to relinquish.

TO THE BOTTOM!

By

CARTER T. WAINWRIGHT

★ **T**HE two Belgian scientists, the Piccard brothers, have spent the best part of their lives trying to do two things. First, they succeeded in going higher into the air than anybody else. Second they went deeper into the ocean than anyone else. The report that one of the brothers made on his trip to the oceans' depths is a fascinating story. Almost everyone is familiar with his "bathysphere," the heavy steel sphere into which he locked himself and was lowered farther into the sea than any human ever had gone.

The bathysphere was the first successful device for really going down deep into the ocean. Previously, most descents had been made with a diving suit of one form or another. This meant that a man could only go as deep as the air pressure within his suit would permit him. This is no more than a couple of hundred feet. The only way that real oceanic depth can be attained is by descending in a steel suit with a separate air supply, the pressure of the water being taken by the suit, not the air in it. With a bathysphere, still greater depths can be attained because it is in the shape of a sphere, the strongest form of construction.

The bathysphere was a hollow steel ball about eight feet in diameter, equipped on the inside with lights, oxygen, instruments and all the appurtenances necessary to maintain life. It had a strong quartz window with a powerful searchlight, protruding from its side. Lowered at the end of a steel cable, it enabled Piccard and an observer to go down more than three miles into the Pacific ocean and photograph and study the weird fauna therein.

The only reason he couldn't go deeper was because the steel cable became so long and weighty that it was in danger of breaking. The ball itself would have stood much greater pressures.

Piccard is going down into the ocean again, but not in a bathysphere. Belgian shops are building for him a unique ocean-going vessel. It is in effect a submarine—but it is really more analogous to a water-going blimp or balloon. A balloon rises because its buoyancy is greater than the sur-

rounding medium—the air. Similarly a submarine floats because its buoyancy may be controlled by changing the volume of its air tanks. The only reason a submarine can't go deeper is because the water pressure finally would become great enough to crush the relatively thin-walled air tanks and thus prevent its rising.

In his new-type bathysphere, Piccard has a steel ball just like the old one—but still stronger—attached by cables to a thin-walled metal container so that the whole set-up will float. To make it sink to any depth he desires he has attached steel bars with a magnet. Thus he can rise to the surface by simply releasing this steel ballast. But the marvelous thing that he has done is this: the metal bag or container that will carry this sphere like a blimp carrying its cabin, will not be crushed because it is filled with gasoline! The density of gas is less than that of water. Therefore the bag will float unless weighed down by these steel weights. It is exactly like a balloon and its ballast, except here the "balloon" is filled with gasoline and not air and the ballast is composed of steel bars, not sand.

Piccard will be able to descend to almost any depth in this gadget—even as far as five or six miles. To sink deeper he will pump gasoline out of the "bag." To rise to the surface, he will drop some of the weights. All of this is remote-controlled, of course. His only link with the surface vessels above will be communication through the water by means of supersonics. Otherwise he will be completely detached from the world above. What a thrilling sensation that will be! Should anything go wrong, the vessel on the surface will be able to do nothing, but Piccard knows what he is doing and the craft will be thoroughly tested before he submits either himself or his assistant's life to such great depths of water. Imagine yourself locked in a steel ball five miles deep in the ocean with no contact with the surface except this transmitter. What weird sights will be seen through the heavy quartz window, what monstrous creatures will swim before the eyes of these men! It is a challenging adventure.

SCIENTIFIC

AGE OF MAN
(RECENT)
30,000 YRS.

PLEISTOCENE

1 MILLION

PLIOCENE

6
MILLION
YEARS

MIOCENE

12
MILLION
YEARS

OLIGOCENE

16
MILLION
YEARS

EOCENE

20
MILLION
YEARS

PALEOCENE

5
MILLION
YEARS

135 MILLION YEARS

MESOCENE ERA



It was in the Indian Ocean that the volcanoes began their thunder, and they continued along the arc created by the crash of the Northern Block of continents against the Southern Mass, finally reaching the warm lands of the Antilla, and from them passing to the Americas. The land was wholly covered with ashes.



The Yegua formation of the Gulf Coast tells the story. It was once a warm, forested area before the pressure from the south began to be felt. Then it was down-warped and today is thousands of feet below sea level. The sea invaded at intervals as pressure waned.



Louis Agassiz found some fossilized human jaw bones and some foot bones in the coral formations which make up a part of the Florida coast. He placed the man as modern and the period as the Pleistocene. But how could Florida have a tropical climate during the time when the ice sheets covered Wisconsin?

Once man had mastered the art of boat-building, he used not only the land bridges that connected the continents, but the island beaches that dotted the oceans, using them as stepping stones to cross from one continent to the other. Evidence indicates this is so.



MYSTERIES

WHEREIN THE STAGE IS SET FOR A TITANIC DRAMA

By L. TAYLOR HANSEN

**The question of the movements of the continents has
always been a fascinating subject for geologists**

DURING the *Mesozoic* when the block of Northern Continents lay hot and still under the belt of the tropics, and Gondwanaland was fracturing under the lateral pressure and weight of her glaciers as her great mass rode into the Northern Block, the stage was being set for the most titanic drama of all time. Man was not much differentiated from his fellow mammals, if indeed, he was differentiated at all. He could not have known or guessed, the terrific forces at work, or how they would affect his destiny for millions of generations to come.

According to the reconstruction of this colossal picture which the new geological conception has given us, our apparently stable oceans and lands are not stable at all. Natural forces are at work continually trying to bring the land and water into complete adjustment. Possibly that adjustment will only be complete when all the continental rocks (Sial) are so evenly distributed over the lava core (Sima) that the seas shall roll a mile above the top of the land. Possibly the planet Mars reached such an adjustment before her seas began to dry up, if she ever had seas. The topography of Mars is only used to illustrate the perfectly adjusted plant.¹

The Northern Block had apparently almost reached such an adjustment. The continents were lying low, much of the land barely above water level when they began to feel the impact of the Southern Mass. The point of contact was undoubtedly India for the Tethys Sea was closed from that point as the Southern Block began to flatten against and partially over-ride the Northern Block.

The bottom of the warm Tethys was crumpled up to form the Himalayas and the Alps which, as the Atlas Range, continued on out into the Atlantic. The thunder of the volcanoes which had begun in the Indian Ocean continued on along the arc which the crash had created, finally reaching the warm lands of Antillia, and from

¹ That the moon has high peaks is probably due to the fact that it cooled quickly and was too small to have either air or water, the two eroding elements.

them passing to the Americas.²

The Yegua formation of the Gulf Coast tells the story. It is now thousands of feet below sea level, but it was once a warm forested land before the pressure from the south began to be felt. Then it began to be bowed downwards, or as geologists would term it, down-warped. The sea invaded at intervals showing the pressure tended to be periodical, or else the northern Sial yielded spasmodically to a more or less steady pressure.

Finally the pressure became too great. Volcanoes thundered and the land was overlaid with lava and ashes. The seas invaded, more and more often bowing down the old land surface until at present it makes a steep pitch under the Gulf of Mexico, to the depth of seven thousand feet or more. Oil drillers have helped us to read this story, which sets the stage for the first civilizations of man to follow.

In the coral formations which make up a part of the Florida coast, Louis Agassiz found a fossilized human jaw and some foot bones. He placed the man as modern and the period as the *Pleistocene*. In his writings about it he suggested that the man was living upon a land surface composed of coral reefs.

It must be conceded that the great scientist was being unduly conservative. Coral reefs cannot exist except in shallow tropical seas, yet it does not seem possible that Florida would have had a tropical climate in the time when the ice-

² Quotation from *Daly's Mobile Earth*. "Elusive as the cause or causes may be, we can no longer deny at least moderate regional displacement of the Sial in latitude or longitude or both. The earth's general plan, the mountain arcs, and foredeeps, the transverse shortening of the geosynclinal prisms, and other facts of observation seem to prove that the Sial, either by its own expansion, or by the freeing of large, independent blocks, moved toward a mid-latitude 'furnow in the northern and southern hemispheres'; and that at least large fractions of the Old World continents moved eastward, toward a central Pacific region, while large fractions of the two Americas moved westward."

sheets had reached Wisconsin and Michigan. The alternative, of course, is to date back the time of man's existence to at least the *Pliocene* or perhaps even earlier—certainly before the advent of the ice.

Undoubtedly this clash of the continents had wrinkled parts of the old Antillia into high mountains and down-warped others. It seems that the full force of the crash which was beginning to be felt in the Americas from the Tertiary through the early *Miocene*, pushed up the entire northern continent, and land-locked a large inland sea.³

In the region which lies between the Columbia River, on the north, the Wasatch Range of Utah to the east and the Sierra to the west, known to geologists as the Great Basin, the geological history, although far from being settled as yet by those who have studied it, nevertheless throws some additional lights upon the entire picture. It would seem, according to Jaeger, that the great *Miocene* inland sea of the west not only had coral reefs, showing a warm climate, but abounded with huge oysters and other mollusks. Of special interest here is the fact that these fossils show an affinity to those of the Caribbean, suggesting connection. Was this the time of Florida Man?

ON THE other hand, King called most of these series of beds Humboldt *Pliocene*, while Louderback considered them largely identical to those which Russell called the Lake Lahontan *Pleistocene*. Russell found the fossils of mastodon, camel and horse imbedded therein, and since these are *Pleistocene* animals, it would seem that his dating is correct. Yet the coral reefs still suggest that the inland sea persisted from the warm *Miocene* up into the ice age. Incidentally, Dr. Hewes has called attention to the discovery of the graves of Modern Man, containing skeletons in flexed positions (like those on the Channel Islands of Calif. coast) with Indian artifacts, along with the bones of these same animals, most of which have been splintered in the fashion the Amerinds were wont to do to obtain the marrow. Did Florida Man live during the early period of this great lake, and the tribe in Fresno County, during the late period of the same body of water?

The oil wells of the gulf states seem to show in their sediments that the main period of mountain building in that region was from the *Eocene* to the *Miocene* by the amount of volcanic ash to be found. We might not be wrong then, if we assigned the Caribbean rim of the West Indies Chain to this date. Today not only the sediments from the bottom, but also the lava caps of

the highest mountains show us the giant ridge of towering volcanoes which probably enclosed part of this inland sea.

The Americas in the *Miocene*, like Europe, to which it was tied by the Labrador-England Bridge, after it had absorbed most of the impact of the Southern Block, began a slow drift toward the north. At the approach of the impact, the Northern Block had sprawled across the tropics, harboring in its tangled jungles the terrible armored dragons of that period. Now during the *Miocene*, the tropical belt was reaching Florida, while Colorado passed from the tropical belt to the desert belt north of it.

During the *Pliocene*, as the continents continued to drift northward, though the Atlantic was still widening from the southern end, the tropical belts moved south, or, relative to the inland sea, the climate cooled. This slow movement continued through millions of years, though the period was not as long as the *Miocene*. Then as the continents reached the arctic, the onset of the ice began.

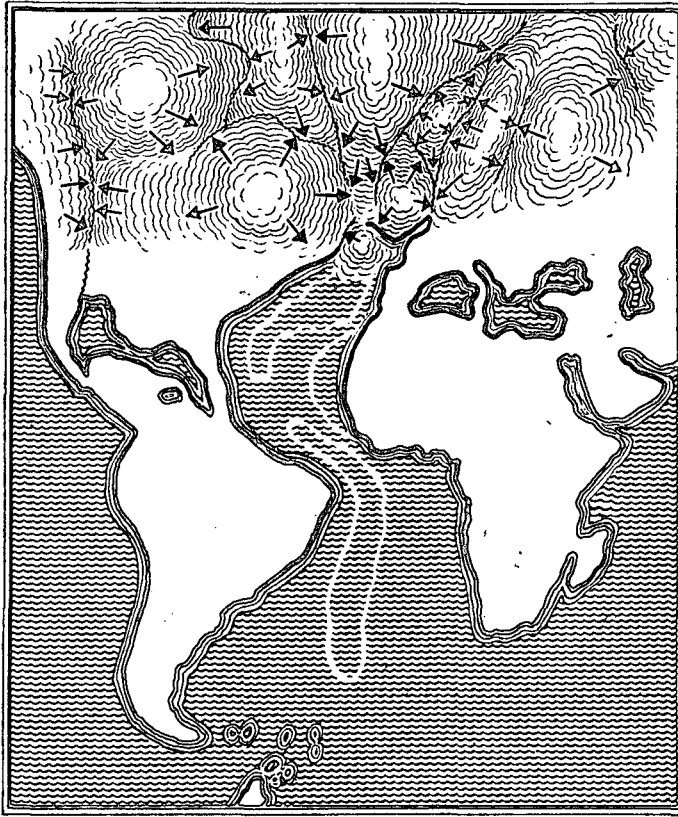
The ice apparently fluctuated several times. We know that there were two very definite onsets with one long interglacial between. What the explanation for this may be, we do not know. Possibly once the motion had been to the north, thus crowding the continental masses in the northern hemisphere, it was difficult to reverse the movement, and the later onsets of the ice were periodical reactions. That there were other unknown complications is suggested by the lower glacial moraines in the Southern Continents for this period.

Nevertheless, that the movement has been reversed, is apparent from a study of the disjunctive belt of the Arctic Ocean, and the fact that the North Pole has moved from Greenland to its present position. Though it must also be conceded that the movement is not merely south, but southwest, for the Americas, and east for the Eurasian Block. Thus the crash of the continents in the Tertiary which started them northward and away from the Atlantic, is presented today in the away-from-the-Atlantic movements.

DURING the *Pleistocene* when the reversal began, the point of weakness which was destined to feel the blow of the rebound was the Mexican-Caribbean region, though it is possible that the whole southern continent may be somewhat bowed up. However, it could be argued that such a bowing may have taken place during the original Tertiary impact. Be that as it may, it was probably during the *Pleistocene* that the Caribbean Rim was broken, and the great inland sea was drained.

Thus the stage was set for man's first adventures with empires and with kings. It was a stage pregnant with the possibilities of great catastrophe in certain locations, but man, the actor, did not know that. It was only natural for him to flee the onset of the ice by crowding into the warm,

³ North America is apparently bowed up more than five thousand feet. The greatest height comes along the fortieth parallel and plays out toward the north. Much of the western part of the United States is block-faulted, some of it in giant overthrusts, showing a landsurface apparently either too brittle to bend, or, unable to do so because the pressure was too great, or both.



*Map of the probable Pleistocene world, compiled by the author from Schuchert, Croll, Woods, Antevs and Nansen, with special indebtedness to text of Reg. Daly's *The Earth's Crust and Its Stability*, Amer. Jour. of Science Vol. V. Chamberlin & Salisbury also contributed to background.*

Attention is called by the author to the manner in which the lines of profound crustal fracture (rifts) followed the lateral pressure of the glaciers as they met in head-on collision. It is probable that the East Sierran Fault was greatly aggravated by this same lateral pressure. It is not known at present whether parts of the Central Atlantic Ridge, or the West African Atlas Rim were dry land at this time. However, it is significant that evidence of westward-moving ice is to be found at a few points upon the Northeast coast of North America.

equatorial region, and the pleasant sub-tropics. For during the *Pleistocene*, the Caribbean was about in the present climatic location of Virginia.

Not only had the land-bridges which connected the northern lands to Europe and Asia become ice-capped, fastening him in the Americas, but great quantities of water, hitherto in the seas, had been locked up in the ice-sheets, thus exposing great stretches of the old Antillean land surface in the form of large islands.

The distances of these island-benches, from the main body of the continent, were probably not unlike stepping-stones, once man had mastered the art of simple boat-building. As he grew proficient in sea-travel, islands would be particularly attractive to him, since they not only provided protection from wild animals, but also from the fiercer, roving tribes of his fellows.

Upon these island homelands man probably first learned agriculture, since our earliest knowledge of grain-raising man shows him already versed in the art of terracing, which it must be admitted, is an art particularly adapted to a mountainous terrain. And once he had learned the trick of boat-building, a crossing of the Atlantic would not be a momentous undertaking since the Atlantic of the ice-age was not to be compared in width to the ocean it has become today.

It is probable that, since the conditions which prevailed in the Americas, prevailed to varying degrees elsewhere, that the *Pleistocene* was the day of the island-kingdom, and that the only civilizations worthy of the name were ocean-going. Island-kingdoms inevitably grew to empires as island-kingdoms have a way of doing.

The original inhabitants, who may have sought it as a refugee location, soon increased to a point beyond the capacity of their island to support them, and then either sufficient trade, or other hinterlands must be found.

Thus upon a stage which was set millions of generations before, came the first civilizations of mankind. Under the banner which was the to-

temistic god of their ancestors, they ate up (absorbed) other smaller kingdoms until their number was reduced to but a few and those were of far-famed power and luxury. But the stage upon which the drama of their existence was to be played was one dressed for tragedy. And with the thundering of the volcanoes which heralded the end of the *Pleistocene*, that tragedy began.

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A NEW THEORY OF GEOLOGY

By

R. B. HOAG, M.D.



IN THE sea there is a tiny kind of shell called *Globigerina*. It is the shell of a tiny shellfish. Each one of the myriads of tiny shells that go down to the bottom of the sea after the shellfish dies, is still a living thing; the shell is still alive. How interested I was, one time, years ago, when I read in a big book of geology I have, that what is known as green sand forms in the tiny empty shells of the *Globigerina*. The geologists call green sand "glauconite." That name is a misleading one for it means merely the material of green sand when it is in the amorphous state. How is it that green sand forms in place in the tiny shells down in the sea? Are there not plenty of other places in which those green silicates can crystallize out of the sea water? Why do the chemicals that form complex silicate choose those tiny shells to get together in?

The complex silicate seems to need something to get it started to crystallizing out of the sea water. Those crystals grow there and may fill the little shell. The shell itself may disappear. The silicate may go on growing, so that the crystal of green sand is a larger one than is usual. Much of that crystallization of that particular kind of complex silicate may be formed for there are formations called "green sand marl." We are led to suppose that the cause of that crystallization of the complex silicate in those many tiny shells is some remaining organic matter in those tiny shells.

You read that statement and go on. You are not a scientist, so you take what the person says in that book of science, and pass on to the next thing he tells about. I myself did that way for years. Then I came to see from very many things

that my mind had been brooding over, that there is, actually, a kingdom of life below the plant-kingdom of life.

I was many years getting to the place where I saw that there are very many examples of what goes on when your own teeth grow. That is an example of what living crystals do. The growing of calcareous shells about shellfish is the same kind of a process that the growing of teeth is, in your own case. You know, probably, that there is what is known as the "enamel organ" from which your teeth grow up. I am sure that in the so-called enamel-organ there are living crystals of some compound of calcium. In the ends of the bones of the young human person there are osteoblasts. I believe that in those protoplasmic cells are living crystals of some compound of calcium. How much calcium and silicon are used by animals and plants! Without those stiffening substances no evolution of higher forms of animals would have been possible. I believe that ordinary wood is a kind of crystallized carbon-compound. (You need to deepen your idea of what crystals are, of course, if you are to think much, deep into the great problems of life.) I believe that in the protoplasm of all living cells, both that of plants and that of animals, there are myriads of living tiny crystals of different kinds. Of course those crystals would grow, grow so big that there would be no room for any protoplasm in the cell—if nature had not, long since, solved that one of the many problems. If the living of the crystal was to continue on indefinitely, then as one part grew, another part would have to be dissolved away; for only while the crystal grows does it live.

Very long ago a partnership was formed between protoplasm and living crystals: "You protect me from external injuries," said the protoplasm, "and I will keep you continuously supplied with what you need for your kind of life and I will continuously remove the 'dead matter' that you are through with: that waste matter is just what I need for my living."

That tiny *Globigerina* died, the protoplasmic member of that co-partnership. What was the crystal, who was left alive, to do, now that its good friend had died? The tiny shell went down in the sea water. It came to rest on the bottom. It was soon in need of more calcium carbonate. Well, there was plenty of that in solution in the water. "I see," thought the tiny living shell to himself, "I can still get plenty of calcium carbonate for my living and for the work I do. What is this? What I feel is not just the same as what I used to feel when my partner had his soft body right up next to my growing, living part of me. I believe I like this new experience. Now I have calcium to work with and I have silicon. I'll see how it will be to use this new stuff; I like a change from what I have been having all my life." So, a complete iron-containing green silicate grew there within the tiny-shell.

In the hot-springs that are active in various parts of the earth much calcium or silicon is used. That is not just crystallized out of the hot water as the deposit in the old-fashioned teakettle was crystallized out, by evaporating of much water in which was a little calcium carbonate. Tiny living beings do that work. In the case of the lime-secreting algae, the calcium bicarbonate is removed from the water. That throws down crystals of calcium carbonate. (The presence of calcium bicarbonate in the water makes for the easy solution of calcium carbonate. Take out of that water the bicarbonate of calcium and the calcium carbonate that was in solution in that water has to crystallize.) In the case of the algae that use silicon, some chemical process not yet understood causes the silicon to crystallize out, as some kind of silica, into the crystals of which some water enters into chemical combination. Opal is an example of this hydrous crystalline silica.

How very much limestone there is in the formations of the rocks of the earth. That is not made from powdered shells. There may be many shells in some limestones, but most of the limestones and dolomites are fine-grained rocks. I believe that those very extensive formations are the geologic records of work done by myriads of living crystals in eras of the past, even in the era before any plants had been evolved in the earth.

TINY living crystals, very far back in the history of life, were the only living beings in the earth. What first begins a growth remains in it as its innermost about which all is organized. Living crystals of different kinds, myriads of tiny ones, are what makes living possible from plant

and animal protoplasm. How could the protoplasm do its work if no small chemists were there to do that absolutely necessary work of getting the needed special substances separated out from the solutions that were in the protoplasm? Tiny living crystals do all the chemical work of plants and of animals.

I am no laboratory-worker with the best microscopes and the best techniques of dissecting down into very small living protoplasmic cells. For many years very many patient scientists have done that kind of work. Of course some of that kind of work was necessary. But how can we avail ourselves of what the thousands of that kind of workers have worked out? The laboratories could close down for fifty years—and the people of the human race would be very much better off—for many thinkers would make use of what had been already worked out in the many fine laboratories. In one of the laboratories in Canada, years ago, a deep thinker put several discoveries together—and very useful insulin was the result. How would it have been for the human race if that scientist had merely kept on with his ordinary laboratory work? There is urgent need for many persons to turn to constructive as well as research thinking.

One time, very long ago, there were no solids at all, only gases and liquids. "How could that be?" you may ask. "If there were no solids, where would gases and liquid come from?" Gases came before liquids. Liquids are the result of a very interesting thing; a change has to take place in the atoms of that substance. I will tell you what I believe is a very important scientific fact. I was thinking, not many days ago, about our Sun. I believe that stars are not hot. They could not be anything but extremely cold—at absolute-zero temperature, or below that. (How could black sun-spots be in the sun if the temperature was anything near what the scientists seem to believe it is? All things there would be incandescent, would they not? How could anything black be there?) The principles that enabled some scientists to work out the idea, absolute-zero temperature, makes you know, when you think deeply into it, that the Sun and all the other stars, are at, or below, that degree of temperature. (Astronomers say that they can, with their very wonderful instruments, know the state of matter of the great heavenly bodies. One brilliant idea is that we are living in an expanding universe, in which all the heavenly bodies are traveling away from us with the speed of light.)

What is the ether? I believe that the stars are all safe storage places for liquid ether. I believe that liquid ether is the most dangerous, most powerful explosive there is. Far from any planet, compressed by a tremendous "atmospheric pressure," at or below absolute-zero temperature, it is safe.

Go out of your house, if the time is right for that, and look up to our star. You, yourself, have some good astronomical instruments: your

eyes. Put them to good use; you will not injure your eyes if you look steadily up into the blaze of the sun. Do not get a smoked glass; look with your unprotected eyes at the sun.* In a few weeks you can get so you can know for yourself that what I say is true. You will see the liquid ether of the sun yourself. Blue. The sun, and all the other stars are a beautiful, satisfying, cool, radiant blue. You should take notice (when you get so you can see the satisfying blue of the sun) that that cool, deep blue is a smaller globe than is the great yellow blaze that at first your eyes see. You get so you can look away the coronaphenomena so as to see the actual sun itself. You even see through the very porous frozen ether that crusts over all the whole titanic globular fluid mass of the liquid ether. You may see for yourself that blue is the real primary color.

All atoms of whatever kind are, I believe, like our sun in a way.

The sun has as its active region a thick shell all around, known as the corona. All within that shell is a region in which there is not much "self-activity." All outside of that corona much more "self-activity" is possible. The corona is far out in space from the central nucleus of the solar system. Visualize this titanic protoplasmic-cell. It has a kind of a nucleus to it, the great globe of liquid ether closed in with what you might call a nuclear membrane, made up of living crystals of ether that could form only at that very low temperature a frozen crust. No gas of any kind can exist there, and no liquid (there in the crust). Below the crust is clear transparent liquid ether. (The liquid ether itself is not blue. It gives off a cool, radiant, blue light. It, that blue light, is what you see when you look up into the sky, everywhere.)

Atoms, too, have a corona to them. Within that corona no self-activity is possible. Outside of that corona self-activity is possible. Press the coronas of the atoms close to the central nucleus and the atoms become changed atoms; maybe that is so. Nitrogen is not a very active chemical

at ordinary temperatures and under ordinary atmospheric conditions. Maybe the coronas of those atoms that make up the molecules of atmospheric nitrogen are not just right. I think of some of the experiments in chemistry I myself did, when I was doing my college work. There is a nascent state atoms can get into. It is while they are in that state that they are most active.

Let us try to be ourselves (in our minds) atoms. Maybe we can understand if we try to imagine ourselves pressed upon from all sides, as you would be in a very bad panic—persons all piled up in a great struggling mass of terrified ones. What good do your frantic pushes do? You but make matters worse for the whole great struggling mass of persons. If everybody would be quiet, not move any at all—that is what I mean by the state within the atoms. In order for an atom to be an atom, myriads of very small particles of some kind of chemical element have to be so pressed upon that no Brownian movement is going on there within the atom, inside the shell that the corona is. Brownian movement is caused by blows from particles that are in the space about the tiny particle. Within the atoms, in that relatively big space that is between the corona and the nucleus, no movement of any kind is going on.

WE WILL now go to a consideration of crystal life on a grand scale. Continents grow. There is what might be called the cambium-region of continents, islands, and sea-bottoms. In the geology of the early rocks are evidences that what I have said about there being a crystal-kingdom of life below the plant-kingdom is true. (I will have to go into a few of the details in this matter, for if any geologist should read this, he would not believe me if he had no evidence in what I wrote that I knew geology.) In the great sedimentary formations there are, in some of the beds, very many fossils. The ordinary fossils of the early living forms are all examples of a partnership between small protoplasmic living cells, and living crystals. The whole Paleozoic formation is a demonstration of that fact. We, ourselves, should realize that we human persons have the benefit of the partnership between protoplasm and crystal-life. All higher life has to base itself on some form or forms of crystal life—for its necessary food and for help in some of its problems of body structure. How very many different kinds of small protoplasmic cells there are in the intestinal-tract of a human person. How very many tiny glands there are, each one lined with many special living cells. They are places where chemist-crystals live and do their wonderful work. Granules are in those cells.

What are those granules? They are, actually, living crystals. The life of those tiny crystals can continue on indefinitely, because the size of the tiny crystal is kept down; it can keep on growing. As the crystal grows in some parts of it, it

*This, of course, is Mr. Hoag's own opinion and the editors of this magazine do not advocate that you follow his advice. If you plan to do such a thing, a competent eye doctor should be consulted for an opinion on its advisability. Mr. Hoag is, we understand, a practicing physician, but does not submit this manuscript on anything but his theory of geology. Your editor, himself, as a boy, remembers looking at the sun until it turned blue, and his eyesight is very good. Then, there is the case of the Indian Fakirs, who stare at the sun in religious fanaticism until they go blind and spend the rest of their lives with eyes uplifted sightlessly in a penance. Obviously, then, staring at the sun for any length of time will cause injury. The purpose of this mention, in this article, is to stress the fact that the color of the sun is blue.—Ed.

is used up by the protoplasm in other parts of it. During the period of digestion of food, the tiny crystals build themselves up to their largest size, then there is a resting state, while the protoplasm is using up some of that chemically built protoplasm food. While the crystal is growing, it is living. The living it does goes on only while the crystal is growing. When it ceases that growing—that is like sleep.

Grains of sand are sleeping quartz-crystals. Put them into the right kind of solution of silicon, and the eroded places of the grain of sand will fill out, so that the characteristic crystal the grain of sand originally was has been reformed. What is known as quartzite is rock that has been made up of sand that had, as it were, been waked up to grow again.

If you believe that quartzite grows (and what geologist can doubt that fact?), you have to believe that there is the crystal-kingdom of life. We who know geology know that all of the different kinds of silicates that go to make up granite and other crystalline rocks, can form in aqueous solutions. Geology is full of the evidence of the growth of crystals of rocks from out of aqueous solutions. The assumed crystallization of the primitive rocks from a molten magma is not at all necessary to the formation of the original rocks. (The geologists assumed that the earth was originally molten rock-material. So, believing that, they had to get their rock from that source.) Why not give up that idea of a molten rock-material? I myself did that years ago. How great a change that has made in my thinking about many things. All rocks crystallized out of very heavy aqueous solutions many miles down in the one great ocean of aqueous solutions that is all beneath the sea-bottoms, continents, and islands—and float in that very heavy water, as iron floats in mercury.

Continents are titanic floating masses of crystalline rocks. Originally all the many chemical elements were in solution in the waters of the one great ocean. The separation of the various chemical elements from the water of the great ocean was done by living crystals. There was no hot stage to the evolution of the earth. That is a mistake. The sun is not hot. The sun does not radiate heat out into space. How that idea seems to cling even in the minds of some of the scientists. They tell you "how hot it is at the surface of the sun." They calculate how much heat is given off from the sun every million years—so as to try to tell "how much longer the sun will continue to be what we need for our living." "The dying sun"—you see that idea in some books by prominent astronomers. How many billions of great stars there are. If all of them had been radiating heat out into space for millions of years, would not it be quite hot in all space by now? Where does all that heat go? Of course the heat you feel when you are exposed to the rays of the sun is heat generated in place, by light-resistance, just as the heat in an electric

toaster is generated in place by electricity-resistance.

One more thing about the sun. We see that there are great good effects of light. Light is what we all have to have. Plants are living beings that can do some wonderful things, by making good use of light. Living protoplasm has to have some light. All the activity that goes on in the green leaves of plants is not plant activity; it is crystal activity. The doing of the work that leaves were made for has to be left to living crystals; all that the plant cells do is to make necessary arrangements so that the crystals will be supplied with the substances they need and waste matter taken away, and the crystals themselves no be let grow too large. The seeds of plants? What about them? Are they living embryo plants? There is a sleeping state below the state we know as living. There, in that state, very tiny crystals "sleep."

In the year 1938, I think it was, a cyclone came to the New England states (to that part of the continent of North America). At that very time a seismograph in Sitka, Alaska, made a record of movements of the place, there in Sitka. I have seen no attempt by any scientist to explain that strange fact. I believe that fact was due to what I said about continents; they float in the great ocean that is beneath the sea bottoms and continents. That is my explanation of that fact. I give it for what it may be worth to you.

YOU can read in the geology books about the so-called Archean system of rocks. They were at one time thought to be the primary basal rocks of the earth's crust. It is said that the metamorphism caused by the pressure of the igneous rocks on the rocks that were above them was not merely due to pressure contact. Other facts than that fact of general pressure were factors in making the rocks be as they are known to be. All of those facts and very many more important ones, can be explained by great mountain ranges growing up through some of the overlying beds of rocks. In a short article that is intended for ordinary persons who know little about geology, I must not load my writing with the many interesting things that geologists know about. The geologists may think I have not taken everything into consideration. Let me tell them that I have been working over twelve years, off and on, on what this short article for ordinary readers is based upon. I know geology. All those years I read and thought about problems of geology. With scientists I could go into many interesting details. I will make this statement for geologists to read and think into. If there were no fossils of original crystal life (fossils from the era of life before the plant fossils and the animal fossils appeared), how could the many great beds of limestone and dolomite be, so far down in the old sedimentary formations? Where did all that calcium carbonate come from? It is supposed to have come from shells. I believe that much of

the limestone and dolomite are geologic records of the work of living crystals, living crystals that were not in any partnership with plant protoplasm, or animal protoplasm. I believe that there was a great era of life before there were any animals or plants, anterior to the life that is well recorded by the cambrian beds of sedimentary rocks.

I believe that all crystalline rocks are geologic records of living crystals. Metamorphism was but a secondary change. We need to get the right idea about the original condition of matter after the earth had taken form. Was it a molten mass of rock materials? How could the earth have been that hot if it had been formed as the geologists all seem to believe it was, hot enough so that even after millions of years the thick crust (that geologists assume is all about a very hot shrinking central region) could warp great hundreds-of-miles long regions up, and then, after another million years, warp the same great, long region far down again, so that the water of the sea could go there—so that the marine fossils of that one of the geologic periods could be deposited there to form, far inland in the continent, great, continuous, thick beds of fossils? Great regions of the massive rocks did get raised to great heights and were crumpled, of course. In the regions of great growing mountain ranges that was always so. That was not caused by a wrinkling of an assumed crust of the whole earth. That is merely local to that region caused by the growth upward of a mountain range. How much the geologists have labored to try to make the observed facts of geology fit some theories they have come to believe in. This theory of a crust all about the whole earth is not true. If the scientists had thought their way all the way through the science they were interested in, before they tried to tell people how things were, how much better that would have been for everybody. Some bad assumptions geologists have been burdened with for many years. This shrinking crust of a contracting earth is one of them.

WHEN I realize that originally rocks did not form from the cooling of molten rock material, but crystallized out of dense solutions very far down in the one great ocean that the earth essentially is, the explanation of great floods from the ocean came to me. How very much deep thinking I did about that for years as I went about my work as a family doctor!

How about water-of-crystallization? How could there be that in all crystalline rocks, if they had formed in the way the geologists say they were formed from molten rock material? Water in the form of hot water vapor might be in a molten mass of rock, if there was no way for the steam to get out; but would not there be many tiny holes in that rock, when the mass cooled—like pumice stone, something like that? Heat drives out water-of-crystallization. You can get entirely away from all the bother of that

whole matter by believing the thing your eyes tell you if you are one who can think into what is written in books of geology—all rocks were formed in the way you can see some rocks are formed (many kinds of them). Much of that goes on all the time, in cracks in the rocks; veins in rocks were all made that way. Crystallization out of aqueous solutions is the normal thing, the thing you would expect. Why, then, try to bring in an assumed molten magma? Crystallization out of aqueous solutions was not secondary, as geologists assume; it was primary.

What would cause a great flood to come in from the sea? How would it be, if no rock was taken off from the top of a great, growing up mountain range that had already grown high up out of the ocean? Crystallization on the very extensive bottom of the great range would not be equal in all places, miles down beneath the sea bottoms. A time might come when some part of the range would get to leaning over to one side or to the other. It is not hard to imagine that some part of the floating range might tip so far to one side that part of the great range would break off. What a great event that would be! What very great waves that would cause.

But that would be only a minor thing in itself. Of course you would need very much more than that to cause a great tidal wave to come up all over the land for hundreds of miles. The tipping over of one mountain could not precipitate, or cause to begin, very great floods all over the earth. But note how things are all along all the sea coasts. Much material is washed down to the sea in a few hundred years. In very ancient times there were no sea bottoms anywhere; so the materials washed into the sea would sink very far down in the great ocean. They would go down till the heavy water there would bear them up; they would float, suspended in the heavy water many miles down, next to the rock of the great keel of that great mountain range. Rocks in which silicon or lime exists get cemented together in great solid masses. In the course of several thousand years extensive submarine shelves would be concreted to the sides of the titanic rock ship, as it floated there in the ocean.

The soluble substances that are washed into the sea also would sink down into the water. Sand, too, would sink down. The greater the pressure, deep down in the ocean, the more easily rocks go into solution. Those rocks that went far down into the ocean would be partly dissolved. That would provide solutions that would act as fertilizers to make that mountain range grow up a little faster than otherwise it would grow up. All along the edges of great continents mountain ranges have grown up there where the fertilizer has been provided for them.

In very ancient times that was caused by the going very far down into the water of the great ocean of much waste material that had been eroded off from the land. Nothing like the growth upward of mountain ranges that hap-

pened in very ancient times happens now. Why? Because now everywhere over the whole *deep* ocean, covering it over, there are sea bottoms in the regions between the continents and the islands; so that the waste materials that are eroded off from the land cannot any longer go down to where the active growing region of the continents are. In very ancient times the mountain ranges were like great wedges that were being forced up from below by the titanic power of enormous amounts of growing crystalline rock.

The power of growing crystals is a very great power. (How easily growing ice can break open a thick iron cannon, if the opening is stopped up.) Great continents were raised up by that tremendous power. We see, in a small way, something like that when we see how the great giant sequoias are lifted up by the growth of the wood in them; all that great weight is held up by living wood, on the bottoms of the trees. If you are in the right mood for it, you can understand that all that is normal for the myriads of crystals that were born and grew up very many miles down in the one great ocean. They know nothing else but great pressure, know no lesser pressures.

The extensive submarine shelves that reached many miles out from the sides of the great ship would break off if some unusual thing happened. That breaking off of the tremendously heavy region of the submarine shelf would start the great ship to rocking. That would break off many great shelves and so would make the great ship rock all the more. More and more great regions of the wide projecting submarine ledges would break off. Now you can understand how very great long-continued tidal waves could come in from the ocean. That process, once started, affected the great ocean everywhere all over the earth. Great submarine shelves would break off of the other continents. Titanic floods of deep sea water would wash across all the land. That would continue for many weeks. Very much cutting down of the surface of the land would be done, in a few weeks' time. Deep canyons and gorges and sea channels would be cut out quickly. Great, long-continued earthquakes would shake up the beds of rocks in very many places. Volcanoes would spout forth. A very, great earth-wide cycle of geologic change would take place in a few weeks' time. Extensive strata of unsorted (and later sorted) materials would be laid down by titanic floods.

The great Flood was necessary to that kind of growth, crystal-kingdom growth. Get that into your mind. Only by taking off much weight from the continent could the living of the myriads of crystals continue on, many miles down in the great ocean, there on the great bottom of the titanic ship made of crystalline rock. The kind of life crystals live requires that the dead crystals be taken away from the living part of the mass. What to us seems like a titanic catastrophe was to the great continent "a great relief" and an awakening to renewed growth.

See what we have done to the ridiculous "calendar" of geology—to the "record of the ages," ages that took only weeks!

IN ONE of the books of geology is a thing I wish you to read and think about. (Thinking to use that quotation in a book that I hoped to get published, I got the permission of the publishers of that Geology to use it in my book. So, I feel free to give that in this article.)

"Nearly one-half of North America was buried in ice. Strangely enough, it was not strictly the northern half, but the northeastern half that was specially ice-invaded, and, more strangely still, not so much the mountainous portions, though these were affected, as the plains. Alaska was largely free from ice, except in or about the mountains; and continuous glaciation did not extend as far south on the mountain-girt plateaus of the Pacific border as on the smooth, low plains of the Mississippi valley. Much the greater part of the 4,000,000 square miles of the ice fields lay on the plains of Canada and in the upper Mississippi valley. The Missouri and Ohio rivers, like two great arms, embraced the borders of the greatest of the ice sheets to which they owe their origin. . . .

"One of the most marvelous features of the ice dispersion was the pushing out of the great Keewatin sheet from a low, flat center, without a suggestion of a mountain nucleus, 800 to 1000 miles westward and southwestward over what is now a rising semi-arid plain, while mountain glaciation on the west, where now known, pushed but little beyond the foothills."*

Athwart the long northeastern coast of Canada for two thousand miles, Greenland with its northern extension, Ellesmere Land, stretches its long, high length. The southern end of Greenland, on the one hand, and high Labrador with its extension (the island, Newfoundland), on the other hand, make a great funnel, you might say, leading into great Baffin Bay. (Get a good atlas, so you can follow me, as I tell about this. Off the mouth of that great funnel lie Newfoundland Banks, a very extensive one of those submarine shelves I told about. An extensive region of that broke off, and sank. That started one of those titanic geologic cycles of great erosion. When that flood got well started, great bore after great bore after great bore rushed roaring up that hundreds of miles long funnel—the great bores cumulating in height, and consequently in force, till they got up into Baffin Bay. What a titanic force-pump that was, that hundreds-of-miles-long great funnel, when worked by those continuing piston-like bores. Very deep, very swift water has a higher order of power than that of an ordinary flood. All that water had to go somewhere. For weeks that would continue on.

Over Greenland some of that flood water

**Geology by Chamberlin and Salisbury—Henry Holt & Co.—Ed.*

rushed. How wide was the titanic waterfall that was there for a thousand miles or more! That flood water, too, had to go somewhere, go somewhere in the ocean east of great Greenland. It made a great, wide kind of a river in the ocean. Two such very wide, great rivers in the Arctic Ocean were formed. One went east of the north pole, the other went west of it. Where the two great streams met, north of Russia—that flood water also had to go somewhere. It flooded down across Siberia, and on southward.

Those were but some of the spillings-over of the titanic flood that was rushing very swiftly up into Baffin Bay. Greenland and high Ellesmere Land were a kind of a titanic deflector of the main stream of that continuing flood of very deep, very swift, heavy sea water. (I believe that the water from very far down in the ocean, a hundred miles or more down, is very different from the water we know about. I said something about the coronas that I believe are about each atom. If the atoms of the molecules of water are compressed very much, I believe that the coronas would be tight up against the nuclei of the atoms. I believe that the kind of water would be very much heavier than ordinary water is, and would have very much greater solvent and erosive power. Do not get the idea that heavy water would change back suddenly to ordinary water when it came up to the surface of the ocean. It is a permanent change that has taken place in those atoms.)

The main stream of the titanic floods fanned out from that thousand-miles-long great, high deflector. Look at the atlas; see how that was. Southward, southwestward, westward and northward the great floods rushed. Very deep was that sea water. Deep water, when it is going very swiftly, can carry very great rocks along in it. And it can push much heavier rocks along on the beds of rocks. That pushing of great, many-hundreds-of-tons rocks along is what ground fine the material of which practically all of the sedimentary rocks of interior North America were made. It was those very great rocks pushed along on the smooth bedrock that did the planing down of northwestern Canada—in the very ancient time when no other land was anywhere up out of the ocean.

There were many of those titanic floods; they recurred in eras of the past. I believe that Greenland, and the region of Canada that lies west of that, was the first part of the continent of North America to show up above the water of the ocean; that kept growing up out of the ocean in eras of the past. I believe that nearly all of the sedimentary rocks that were laid down anywhere in North America came from there; that was the continuing source of supply of ground-up rock. And how very much dissolved material must have resulted from all that grinding fine of very much rock. The Rocky Mountains grew up under great, thick beds of sedimentary rocks. Where did all that enormous amount of ground-

up rock come from? The geologists do not seem to have seen the thing whole. All across the thousand miles to the eastern flanks of the Rockies the ancient floods rushed. Before there were any mountains in the west, similar floods had swept across the whole continent. It was the going far down into the *deep* ocean of very much broken up rock, gravel, sand, and dissolved rock material that made the Rocky Mountains grow up.

WHERE much sediment goes miles down (into the one great ocean that earth is, essentially), continents, or islands, or sea-bottoms grow up. The edges of continents are often lined with chains of mountain ranges. Those ranges of mountains were faster growing parts of the slowly growing continent. Those places, many miles down in the liquid soil out of which continents grow, were fertilized, you might say, by all those waste-products that had sunk down, so that edge of the continent grew up to form mountain ranges.

Titanic floods of deep, very swift sea water (not ice moving a mere foot a day), are what did all that eroding down of the slowly growing up continent. The longer the geologists hold to that glaciation theory, the more trouble they will have with it. When your basal theory is wrong, you have continual trouble trying to make the observed facts fit the wrong theory. When your basal theory is right, you are more and more satisfied with it. We are told that there were extensive ice sheets even back before there was any evidence of life in the earth. We are told that extensive ice sheets lay on low plains in India, part of them within the tropics. How such ice sheets could make all the thick sedimentary beds of the earth is a thing the geologists can never explain. How figs and magnolias could be far up in the northern part of North America, though many thick ice sheets had been there (very much more ice there for millions of years than anywhere else in the earth, outside the polar regions), the geologists do not tell us. They know surely that those magnolias and figs did grow that far north. They can only assume their continuous glaciation. Why do they not start from sure facts and go on from there? Are there any surer facts of geology than beds of fossils?

Ice does not melt from the mountains in the tropics at all; it stays there all the year around. How very hot, then, must have been the climate to melt the assumed miles-thick ice-sheet that covered four million square miles of northeastern North America in Pleistocene times? How peculiar it was that so very much more snow fell there in eras of the past, than fell anywhere else in the earth, even in the polar regions. The geologists have to try to explain that. No mountains were there. The geologists are not daunted; they are ready with another theory to show that the thing could be done. What caused the extreme change in climate from ice-epoch to very hot inter-glacial period? Are there any evidences in

the fossil-beds of the earth to show that there were ever any such very great changes in climate?

In the beds of Silurian fossils are corals. Corals like warm seas. In the northern part of Canada can be found those kinds of fossils.

In order to get the full force of the truth that it was titanic floods of very deep, very swift sea water that did most of the cutting down of the continent, as it grew slowly up, I must try to get you to see, in your mind, what was happening in the region of northeastern North America at the time of one of those great floods. I have told of the titanic, continuing deep floods that kept coming up the hundreds-of-miles-long great funnel into great Baffin Bay. That great bay did not just happen to be there. It had to be dug out. How did the thick ice do that? How did the ice cut Ellesmere Land off from Greenland? How did the thick ice, within the Arctic region, cut out all those many sea-channels at the north top of the continent? Those many channels in Archean rock were cut out. Where was the titanic force, the continuing very great force, inherent in ice sheets lying at sea level to do all that? It seems silly to ask such questions. But practically everybody believes in the Glacial Periods. If there is any person who does not, I have not yet heard of him.

One good thing the geologists did, in northeastern North America. They hunted out many direction-giving glacial-markings over that whole region, so as to get some idea in which directions the assumed ice flowed out from the centers of ice-dispersion. Maps they made based on all that work, give you a good idea of the directions in which the last great floods fanned all out, from the great deflector I spoke of. It is not a good thing to be too sure of those directions, however, for they were based on very many short direction-giving markings on the bed-rock. You have the feeling that was an attempt to make the facts fit the moving-ice assumption.

I do not have to depend on such unsure geologic evidence as that. Look at the atlas. See how relatively straight the eastern shoreline of Hudson Bay is. From the top of Foxe Basin to the bottom of James Bay the line is relatively straight. That direction-giving line is about thirteen hundred miles long. I believe that relatively straight shoreline is a sure geologic record of the direction of the main stream of the titanic floods that rushed swiftly southward in Pleistocene times.

LOOK somewhat west of south on the map. There the big bulge of Hudson Bay is. What made all that? It had to be gouged out of hard Archean rock. Off beyond that great bulge southward lies Lake Winnipeg, no small geologic record in itself. Beyond it lies yet another long lake. Floods rushing westward did that.

How very many lakes there are in that part of Canada. I am not a field geologist, so I have not visited that part of Canada. I see what looks

to me like good geologic evidence on the map I have of that vast region. The streams show you surely the lay of the land there. The many lakes had to be cut out of Archean rocks, or cut out of rocks that former great floods had laid down. (The later floods worked over what former floods had left. Floods were the geologic agents of that. Extensive, thick strata of rocks were laid down by great floods even in Proterozoic times.) Where I see a great lake, or a great bay, I think a titanic maelstrom must have existed while the floods were doing their great geologic work. Baffin Bay, Hudson Bay, the five Great Lakes, Lake Winnipeg, Reindeer Lake, Lake Athabaska, Great Slave Lake, and Great Bear Lake, are, I believe, geologic records of enormous maelstroms of the deep floods of ancient times. You can see from the map how, while flood-water was being deflected southward, other floods were rushing westward from the great funnel directly into Hudson Bay. Would not that make a very great, continuing maelstrom there? Would not that cut out very great regions of rock in a short time? It takes a titanic geologic agent to make a titanic geologic record.

The geologists do what seems to me to be a very unscientific thing: they make use of a geologic agent that is very much too weak to do the given geologic work, and give that too weak geologic agent millions of years to do that work in. If the geologic agent is too weak for that geologic work, then no matter how many millions of years you give it, it cannot do that work. Could a small ant move a ten-pound rock if you gave him ten millions of years to do it? Geologists see a stream rushing in the bottom of a deep canyon. It is as if they said to you: "See, the stream did all that." They would go on to say, "Of course it took very many centuries for it to cut its way that far down into the rock. But we know that each year it does a little cutting out of rock. Add up the many 'littles, and there you are. You have to get used to thinking 'millions of years,' if you are to understand geology. This that you see here, this deep canyon in the mountains, is a 'young valley.' Come here after several millions of years, and all this great region will be what geologists call a peneplain." Geologists believe that. They believe that ordinary rain-erosion, freezing-water erosion, running stream-erosion, shore-line erosion, and wind-erosion, cut great ranges of high mountains down to what they call a base level. They believe that there are cycles of that kind of general erosion, cycles that would require, they say, millions of years of time. The mountains rise up again in some weak place of the earth's crust, rise up high. That starts another cycle of that general very slow erosion. They do not seem to think that the deep canyon, or gorge, might have been cut out before the small stream came there. They see a mighty river of ice in a great gorge in mountains. They see it pushing down, very slowly (on an average maybe not more than a foot a day), some rocks

and gravel, or carrying some on its back. They show you parallel striae or grooves in the rock of the bed of the glacier. They take it for granted that the moving ice cut out that great deep gorge. They do not seem ever to think the gorge could have been there before any ice. Great floods can do, very much better, and ever so much quicker, any of the geologic work great glaciers can do and much more. That deposit of what geologists believe is glacial till or glacial drift, could have been laid down by floods. The tremendous erratic boulders, as the geologists call them, hundreds-of-tons heavy rocks that have been carried several hundreds of miles from the ledges from which they must have come, in some cases carried up hundreds of feet above the level of the place from which they were taken, could easily have been transported there by one of those great floods. The very much unsorted waterworn material of the so-called glacial-drift is, I believe, sure geologic evidence of swift floods. Swift deep water does not sort the material it lays down. The much grooving of the bedrock and of the transported rocks, and the making of the many parallel striae, could have been done by swift floods.

You do not have to lower extensive regions of continents very gradually low enough so that the sea can flood it in order to get beds of marine fossils far from the normal coasts of the continent. Giant floods of sea water could do that in a few weeks' time. The distribution of the characteristic fossils of the geologic periods after the Paleozoic period show, I believe, that great floods of sea water swept across from the deflector to the eastern flanks of the Rockies. Get a geology that shows the distribution of the fossils of the various geologic periods. Look at the places where the fossils of the given periods are to be found, in interior North America. Look at that thoughtfully; in the great Cretaceous floods, the fossils were laid down along that region at the eastern flanks of the Rockies in a band from the Gulf of Mexico to the Arctic Ocean. Some of the flood water rushed through some of the passes in the Rockies of Canada. The hundreds-of-miles long narrow lakes in the stream-bed of the Columbia River are, I believe, good geologic evidence of that fact. The distribution of the beds of the Queen Charlotte series of fossils is, I believe, geologic evidence that those fossils were swept there from the Atlantic Ocean, and deposited in the several separated places where they now can be found. They are clastic fossils. The very great extent of gravel terraces in the gorge of the Columbia and in the gorge of the Fraser, are, I believe, good geologic evidence that there gravel-carrying floods, rushing down from the mountains, met great floods that had come in from the Pacific. Where the speed of the floods was suddenly checked, there the gravel would be laid down. I can think of no other cause for that much gravel being there. Some of those gravel deposits are, in some cases, two or more hundred

feet thick. How could that be done slowly?

WHAT made the many great planes of unconformity was deep, swift floods, not the peneplaning of the geologists, or their continuous glaciation. What would take that slow general erosion process millions of years to do (if it could do it at all), a deep swift flood could do in a month. The time that the various planes of unconformity measure for us, was time from one great flood to the next. Perhaps the plane of unconformity, the bed of unsorted waterworn material, the sorted finer material, from gravel to fine sand, might have been made by the same flood; for at first so swift would be the flood water that no material would be laid down; much cutting down of the bedrock would be done; then, the speed of the water slackening, unsorted materials would come down; then, the water going more slowly, the material would be sorted. The floods might come in great cumulations, to be followed by a period of less depth of flood, a repetition of such action. If that was the case, several great planes of unconformity would be made at about the same time. Another thing that you should have in your mind. The geologists seem to believe that all sedimentary formations were laid down level, or on a not-steep slope, as if they were all sedimented out of ordinary not swift water. Titanic floods would lay down thick layers of material up against the steep slope of a mountain range. The much cross-bedding was done by such floods. If a geologist finds the same kind of sedimentary beds on each side of a mountain range, he takes it for granted that the sedimentary bed was, when it was laid down, a continuous one over that range. So he shows, on his geologic map of that region, how the sedimentary bed must have been all over that range, pushed up, and then eroded off where the range of the mountain was. That the same kind of sedimentary material might have been deposited each side of that range of mountains at about the same time seems not to be thought of by geologists. They seem to have to believe in the wrinkling of an assumed crust of the earth to conform with a contracting cooling hot interior region of the earth; as if the rocks were in layers all over the earth.

The fossils of the many geologic periods and main divisions of periods, after the very early ones were, I believe, laid down by deep swift floods, or were sedimented from great inland salt lakes that had been left by some of those floods. Deposits of salt over four thousand feet thick in Germany speak for a great ancient inland salt lake there. Great deposits of salt are found in many regions of the continents of the earth. I cannot see how those can be accounted for by any slow emergence of the great region up from out the sea (after it had been slowly lowered down, as the geologists suppose). The very slowness of that would tend to form a great swamp. How then would there be almost pure salt in very thick

deposits? Dry desert conditions could not exist, for the sea would be right there all the time that the land was rising slowly up. A deep swift flood could sweep a very great amount of sea water far into the middle of a dry desert, and leave it there, to dry up quickly. (The dry-lakes of the desert regions of western United States were, I believe, made in that way. To speak of what might seem to be a little thing, I believe that the many desert turtles, turtles that have evolved since ancient times so that they are able to go without water for many months at a stretch by feeding on green desert browse, are an evidence of those same great floods; I believe they were salt-water turtles from some ancient inland salt sea, left by a great flood of sea water. How much smaller they are now than the marine turtles we know about. This is only my own thought about that; I am not competent to say whether my idea is a true one.)

Geologists also believe that very extensive continuous glaciation took place in the southern hemisphere in very early Permian times. Australia was very much glaciated according to the geologists. Much so-called glacial drift has been found in Australia, in Tasmania, in India, in South Africa, and in South America. The geologists are much puzzled by all this. Yet, they still cling to that belief in what they call continuous glaciations.

One time, many years ago, I lived for a while in what is known as the Musselshell-region of Montana. We were on the edge of what we called the badlands. Many big fossils were there, weathering on the surface of the ground. You knew that they had not ever been covered up. They were, I believe, Triassic, or Jurassic, Ammonites. They were like great snail-shells, some of them as much as a foot and a half across. The shell material was still there, had not been changed by being covered up with rock; they were not bedded in the rock at all. You would see a clump of what looked like broken rock. You would go there and would see that it was one of those weathered Ammonite shells. How pretty some of them were. Where the partitions of the many small rooms of the interior of the big shell met the surface of the shell, the line of union could be seen, a sinuous line.

There were too in that region many other large fossils that had been covered with only a few feet of loose sandy material. In the cuts a new railroad made I saw many such. Some of the fossils may have been the lower solid portions of Jurassic belemnites. Only about thirty miles west of that region, on the plains, were some beds of fossil-leaves—a thick mass of fossil-leaves like maple leaves. The rock seemed to be nothing but those fossil leaves. Near that place were coal mines that were not deep mines; the coal was near the surface of the plains. It seems to me that the place there might have been at the extreme western reach of a Jurassic flood. Much forest material would have been carried that

thirty miles farther on than the heavy Ammonite shells would be carried.

I MUST tell something about the formations that can be found east of the mountain range that is the eastern rim of North America. It is to me an interesting confirmation of what I have said about deep swift floods of sea water, in eras of the past. Geologists do not know how to account for what they call the Newark Series of formations of the Triassic System of rocks. It was not hard for me to see how those formations could have been laid down. Deep floods sweep along with them much solid material. The swifter the flood, the bigger the pieces of rock. It is deposited, if the speed of the flood is sufficiently checked. Floods came down the eastern coast of North America from the St. Lawrence Valley at the time of one of those titanic floods; that valley could by no means hold it in. The Catskill formations and the Newark formations were laid down by those spillings-over from the St. Lawrence Valley, in eras of the past.

How few fossils there are in the Catskill formations. How few fossils there are in the Newark formations. How singular that is, for those formations are not far from the ocean. (How full of fossils the formations are that were formed by sedimentation from the water of the ocean, under normal conditions.) Only after the many fossils had been swept far onward, during the great flood, were any materials of the Catskill formations, or the Newark formations, laid down. That fact, the fact that there are few fossils in those sedimentary rocks, seems to me to be good geologic evidence of titanic flood action.

Another thing. Much limestone conglomerate is in the Newark formations. It could have been transported from Canada. (No near source of all that broken up limestone has been discovered.)

Eskers—how much fun I have had in my thinking about those geologic records. The material of them is unsorted waterworn material. Parts of the great queer snakes may lie on what had been swamps. Maybe the snake lies with part of his long body up on low hills. To me, that means the place where the great waves of a big flood went up the temporary beach and then ran back down, did that for a long enough time to make that characteristic kind of an embankment. Eskers in the region just south of the eastern ones of the Great Lakes, in Maine, in the British Isles, in Scandinavia? Think about that, with floods in your mind.

In one of the largest fresh water lakes of the earth there are fresh water seals, fresh water sponges, deep sea fishes. What do the geologists say about that? They think that sometime that lake must have been connected with the ocean. What a lot of trouble they go to. Lake Baikal, not far north of the Gobi Desert, confirms what I said about great floods of sea water rushing across Russia from the north. How easily the flood-theory, as I have outlined it, takes care of

everything.

The chalk cliffs of Dover—how did they get there? One can be clear in one's mind about the wide distribution of fossil beds of the Cretaceous period, if one knows about the titanic floods that occurred in that era. So deep down was the water of the seas disturbed, that enormous quantities of globigerina ooze were carried in the flood water. Great floods coming in from the Atlantic met great floods coming down from the north through the North Sea. Where they met the force of the water was checked; there the water laid down its burden (where the Dover chalk cliffs of England are). To me it is a significant thing that the tiny fossils of the chalk deposits are clastic fossils.

One thing I must say, before I leave the matter of those floods. Why do great floods not occur now? If floods occurred in eras of the past, will any flood come in these times? I have said that, to the ancient living crystals (those ones that lived hundreds of miles down in the great ocean) those great cycles of geology that relieved them of much of the mountain-load that they had to live under was necessary, normal. How great a change took place when the land grew up to the surface of the ocean. Light and air and lessened pressure did great things for some new kinds of living crystals; that period of the evolution of life in the earth.

Mother-earth had come to a great new era of her life. Before that time she had been interested in the kind of children (crystal-children) who knew how to grow far down in the ocean, be pressed upon by great weight, and respond to it. Look at a piece of freshly-fractured granite. That is actually a part of a fossil bed; what you see are fossils of tiny beings that were once living beings; (while they were growing, those crystals were living). There are a number of different kinds of crystals in any kind of granite. That is Paleozoic formation for you. You can be sure those fossils developed in place.

I must digress to say a little about the deductions of geologists from what they have found in beds of fossils. How much geologists make of the geologic evidence they get from the fossils of the fossil-beds. They have it all worked out "ancient history of the evolution of life in this planet." What would you say to that if you knew that the shell you had found in place, in Triassic formation in Montana, had been carried there from off in the Atlantic ocean? The geologists take it for granted that the thing had that location for its place to live in, before it became a fossil. They believe that the fossils of a given fossil-bed evolved together. Big mistakes have been made by the geologists. They believe in the evidence they get from beds of fossils—sometimes. How could there have been any plants in northern North America at all, if the ground were all covered miles deep with ice over a region that is mapped out by geologists as being the region of great concentrations of ice, during millions of years in many eras of the past? They say there

have been many long ice-epochs. How then could figs and bananas and magnolias be in that ancient history? The fossil beds up near the Arctic Circle give the lie to all that glaciation theory the geologists have got everybody to believe in. Ancient history is important. Geologists have demonstrated well their unfitness to decipher it.

TO GO back to old mother-earth. She had thought that all her children would have to be like the primitive ones were—granite-crystal children. Up near the surface of the ocean the pressure was not nearly as great as it is down where the first life was born. Graphite too is crystalline. Limerock is crystalline. Dolomite, that magnesium and calcium carbonate, is crystalline. Quartz is crystalline.

How busy mother-earth must have been when the land had grown up to and a little above the water of the ocean. When a mother finds out that there is a very much better place than the old one to be born in and grow up in, she would want all her children to migrate there. Granite-crystals could die and maybe come up into next cycles of life as carbon-compounds.

For a long period of time the land was low-lying land. Practically all the water there was salt water. (It is unfortunate that we think of ocean-water as being only that "sodium-chloride" water. It has other things in it.) Out of the ocean all the substances we have in the earth have come (except a little that has come to us from abroad from time to time). Gases dissolve in sea water. (At first, very long ago, earth was only a titanic mass of many different kinds of gases—decomposition products of the source-gas, ether. Water was the first gas to liquefy. Into that liquid water went gas after gas.) Solids came only when the first crystal was born, far down in the one great ocean of aqueous-solutions of many different kinds of substances—that rich liquid soil. Continents, islands and sea bottoms grew in that soil. Growing crystals pushed up the titanic weight of the great continents, in eras of the past. That is, now in these times, pretty much ancient history. I believe that after the sea bottoms closed in all the deep ocean, so that no longer fertilizing material could go down there, that type of crystal life began to be obsolete in this planet. New times, new kinds of ways of living.

Mother-earth was very busy, at the surface of her great body, trying out many growing experiments. It was the time to provide for the coming of new cycles of life.

How great a discovery it was when mother-earth found that crystals of some kinds of carbon-compounds could keep on growing in parts of them, while the material of the mass that had already been made there, by that crystallization, was being dissolved away. It was one of the greatest discoveries she ever made. Plants and animals are the result of that discovery. (Of course in a short account such as this is I cannot go into all this. I have said enough to get you

to know how very great are the yet unexplored regions of the important science of geology.)

I wished to show you whether any more titanic floods would come. No. A strange, remarkable circle was broken, at the time of the Cretaceous floods. Before that time in northern North America, the main stream of the titanic floods returned much of the flood waters back to the place in the ocean it had come from (by way of great St. Lawrence Valley), so that titanic quantities of washed-away rocks and sand were loaded on the great submarine shelf of the Newfoundland Banks. So, you see, each great flood made it a sure thing that another one of those great catastrophes would happen later on; the accumulation of weight would, in time, break off another region of that great continental submarine shelf, precipitating yet another one of those earth-wide geologic catastrophes. A great barrier, near to the south of the Great Lakes, was, at long last, done away with by the great Cretaceous floods. After that, the floodwater of the main-stream of those floods was spread out down into the great

Mississippian region. (Before that time only great spillings-over from the floods got into what was, in Paleozoic times, a sheltered extension northward of the Gulf of Mexico. What is known as the Paleozoic sedimentary formations there, even those were not made up of the remains of sea-beings that had the Mississippian sea as their former home to evolve in; some of those were carried there by floods. The patient work of the paleontologists will have to be done over again, some of it. Those planes of unconformity that geologists know about in those Mississippian Paleozoic sedimentary formations are good geologic evidence of the spillings-over from titanic floods that, in those times, were not let rush there all in their main force. If that had been, no sedimentary formations of Paleozoic times would be there now. After that barrier had been cut away by the Cretaceous floods, the water spread out widely, and flowed down into the Gulf of Mexico. The vicious circle was broken. No more of those great floods will come.

THE END



MAGIC WATER



MANY years ago water was revered and considered an embodiment of motherhood. Many great leaders, gods and mortals have risen from the sea and embarked on glorious careers. Aphrodite arose from the sea. Sargon was placed in a box on the Euphrates. He was later rescued by a royal party, and when he grew up he became the mighty ruler of Assyria. Moses was found in a basket on the Nile by the daughter of Pharaoh.

People were protected from evil by the magic charm of water. Water is still used for baptism. In Bengal there is a tribe who baptize a child by throwing a mango branch into a well. The water becomes holy as soon as the branch touches it. The child is taken to the well and the water is poured over him while the holy men are saying prayers.

Water has been worshipped for to some it represents our life blood. If a person wished to enter the faith of Mithra, an ancient sun-god, it was necessary to be washed in blood. The neophyte was placed in a hole in the ground, and the hole was covered with boards with holes in them. A bull, goat, or ram was then slaughtered on these boards and the blood ran down below on the person in the hole. These animals were considered potent, the leaders of herds, and were sacred to deities whose special concern was generation.

In the woods in Bohemia there is a small town called Ronsberg which has a fountain which has miraculous powers. Baal Sham, founder of a Jewish sect of mystics, visited the fountain in 1744. He bathed in the icy water three hundred times and declared that the water healed all ills and warded off evil. This fountain was forgotten for many years. In 1928 it was rediscovered and

thousands of mystics have gone there to receive the benefits that the water is able to bestow. The water is even bottled up and carried back to sick relatives who are unable to make the pilgrimage.

There is in the life story of Saint Hilarion, the story of a Christian named Italicus who used to race his chariot with the pagan Duumvir of Gaza. The Duumvir was a magician and by casting spells, he could win all the races. Italicus asked Saint Hilarion to intervene in his behalf. The saint didn't care to have anything to do with racing but finally consented to work a miracle. The day of the race, he gave Italicus a bowl of water that had been consecrated. Italicus sprinkled some on the heads of his horses which seemed to run with the speed of lightning. At the same time Duumvir's horses were unable to move. The crowd was amazed and demanded that the man who had cast such a spell be put to death. Others worshipped him and thought that his miracle was proof of the power of his God. Many pagans gave up their vices and embraced the faith of Saint Hilarion.

Water is an enemy of the demons of death. Superstitious people believe that no ghost or supernatural destroyer can cross water. Even in the "Legend of Sleepy Hollow," Ichabod hurried to cross the water for he knew that he would then be safe from the headless horseman. People quite often dream that they are being pursued by demons or other ghosts, and they dream that if they could only find a stream and wade through it they will be safe. It seems that although we have banished these notions from our conscious minds, they are still retained in the depths of our unconscious thoughts.

Frances Yerxa

IS THIS A FOUR-DIMENSIONAL UNIVERSE?

By QUEEN'S KNIGHT

Here is a discussion of the fourth-dimension which will be of interest to many of our readers from a variety of viewpoints from physics to metaphysics

WHAT is your answer to this question? Could it be possible that we are living now in a world of four-dimensions and never even realize it? "How could it be?" I almost hear you say, "we do not even know exactly what this fourth dimension is, or where to look for it. Yet, we are quite familiar with the other three dimensions of length, width and height. If there were one more, why should not the fourth one be just as obvious and simple to us?" Ha, that is where you are wrong, my friend, for there are many obvious and simple things man has been looking at for ages and he has never noticed them yet. So I propose to prove to your own satisfaction (and probably dismay!) that the fourth dimension is all around you right now.

But first, let us agree on just what we are talking about, because there appears to be quite a lot of confusion about the fourth dimension. Some people glibly say that it is "time" and let it go at that. But, just what is time? Some others claim that it is a measure of "vibration." Still others assume a condescending attitude, of a superior intellect and insult our intelligence with such ambiguous terms as "space-time-continuum," "curvature of space," "entropy" and "unified field concept." But all too often we find them unable to explain the meaning of these terms, which leads us to suspect that they are merely trying to hide their own confusion behind them.

So many people overlook the fact that all explaining should be done entirely from the listener's standpoint and not from that of the speaker. If you possess a secret of tremendous value to mankind, but are unable to explain it to others, what good is it to anyone? Like a hidden hoard of treasure, no knowledge is of value until it is applied and put into circulation. And just what good are fancy terms, unless both, the speaker and the listener, know exactly what they stand for? Unfortunately, modern man has developed a habit of giving a new and fancy name to everything he cannot understand, until his "explanations" often degenerate into an art of juggling words without ever getting to their true meaning. Thus dictionaries define time in terms of duration, then they define duration in terms of time, which completes the "ring around the rosy" and brings us right back where we started from. And our scientists, with their ambiguous phraseology and formidable mathematics, only add to the confusion. Instead of talking our language, they seem to concentrate on showing off how much

they know, completely disregarding their readers' inability to understand them.

Can such things as the fourth dimension, gravity, magnetic field, quantum, space-warp, be explained in simple, easy words, without relying on Einstein, Eddington and Planck, and without using any mathematics? I say, they can, by simply using our common sense and logic. And this is just what I propose to do. I am about to unfold before your eyes a new conception of a much greater and far-reaching universe than you have ever dreamed of. It is a universe, which may bewilder you at first and make you slightly dizzy, but which you will be able to understand and picture in your mind, for you will find nothing there that cannot be explained in ordinary words.

I do not guarantee, however, that the common sense conclusions we are about to reach will exactly agree with the present views of science. This has to be expected, for, after all, we are not just trying to catch up with our modern science. We are going to get way ahead of it. Please recall that scientists of but a few decades ago argued that the earth was flat, until they "noticed" that it was round, or almost round to be exact. They claimed that it was the center of the universe and that it stood still, until they "noticed" it to undergo a variety of complicated motions. And, before long they will also "notice" that we are right and that they are wrong. All things in Nature obey the same eternal principles today as they did many million years ago, for Nature never changes. But man's conceptions do, because his understanding of these never-changing principles is constantly expanding. Each day man "notices" new things, but these things are new only to him. As far as Nature is concerned, they always existed. There is nothing new under the sun, and all we have to do is to observe and think. Does this explain to you how come we have never "noticed" as yet that there is a fourth dimension, although the evidence of its existence is constantly before our eyes?

Now, just one more thing, before we start on our way. Be patient, please, while we are reviewing the fundamental facts. No matter how well you build, your house is bound to fall apart, if your foundation is not sound and solid. You say that mankind is well aware of this obvious and simple fact? Alas, it is not so! The proof is right before our eyes, but no-one has "noticed" it as yet. Man has constructed his whole civilization on false premises and with utter disregard of basic natural principles. And now his proud and glit-

tering edifice is tottering and crumbling. Why? Simply because way back, in the dim and distant past, man overlooked just one simple fundamental fact. He neglected it, believing it to be of no importance. As a result, in building his civilization, he made a fatal "builders' error." In fact, he arbitrarily rejected the very "corner stone" on which all things are based.

And ever since, this all-important "stone rejected by the builders" has been staring in mankind's face and clamoring for recognition. You, too, have been looking at it all your life. But no-one has seen it yet. (That is, almost no-one.) However, that is another story, which is outside the scope of this article. I merely brought the subject up to illustrate and emphasize the absolute necessity of thorough understanding and correct evaluation of fundamental facts. Well, hold your hats, for we are about to start on our trip into the fourth dimension, which you will find to be "out of this world." Please leave behind you all unnecessary baggage, such as your present pet views and ideas, for they will merely encumber and delay you. Let all our equipment consist of some common sense, a little imagination and, just in case, you better take along some headache tablets, enough for both of us!

TO START anything, or anywhere, we have to have a starting point. Theoretically speaking, a point is just an imaginary position. It has no length, width or height and, having no dimensions, it has no actual existence. In other words, it is virtually "nothing." But, being a starting point for everything that does exist, it possesses potential possibility of becoming a "something." Our nearest practical approach to the representation of such a point is a tiny dot, made on paper with a sharpened end of a pencil. By sliding our pencil point across the paper, we generate a line. This line is no longer a mere "nothing," for it has one dimension: length. It can be straight, curved, circular, spiral or assume a variety of irregular forms. Whereas all point are alike, lines have distinct individualities of their own. Consider your own handwriting, which is produced by a point in motion. You cannot discount that as a mere "nothing." A point in motion definitely becomes a "something," and this immense increase in its reality and tangible characteristics is accomplished through adding just one dimension to it. Note also this important fact. A straight line lies entirely in one dimension. But a curved line, such as your handwriting, travels in two dimensions. An oval line, for instance, such as a letter "O," actually circumscribes or embraces a surface which has length and width, although the line itself still has but one dimension. From this we learn that, by curving a one-dimensional line or by "warping" it into the second dimension, we endow it with two-dimensional characteristics. This means that curves are far superior to straight lines. If you could only grasp the full significance of this simple statement! It is a statement of one

of the basic principles of the whole creation and, as such, it is universal in its application. Perhaps you will realize how true this is as we go along.

Now, just imagine yourself as a point upon a line. You could stand still and be just a point, or "virtually nothing." Again, you could progress along the line, become a point in motion, and thus convert yourself into a "something." To an outside observer, a stationary point would appear dead, while a moving point would look alive. You, as a point on the line, could only move forward or backward on that line, but you could never leave it. Not being able to see anywhere, except along the line, you would not be aware of any curves your line might take into the second dimension. And, even if you happened to travel around an ellipse or a circle, you would still think that you are simply going forward. A subway train runs only forward, regardless of the curves its tracks may take, and, if it was not for the centrifugal force on these curves, its passengers would never know that they were carried in any dimension, besides that of length. And, if they always lived on a subway train and had their eyes forever fixed in the forward direction, how could they even understand such things as right and left?

Now, if you have all this well fixed in your mind, let us proceed to the second lap of our journey and move into the world of two dimensions. To accomplish this we take a flat piece of paper and draw a straight line upon its surface. We note that such a line lies entirely in one dimension: that of its length. How could we add to it one more dimension? We note that nothing happens when we slide a line in the direction of its length, but, when we slide it in any other direction, it acquires an extra dimension: width. To demonstrate this fact, we lay a piece of pencil graphite upon our straight line and slide it sideways to its length. The result is a surface which has both, length and width. We could consider such a surface as a two-dimensional world, which we could people with imaginary beings. Such beings would be absolutely flat, as they would possess length and width, but no height or thickness. So, for convenience, and with due apologies to Dick Tracy, we could call them "flattops." We could imagine such flattops as living happily within the paper surface and moving back and forth, to right and left, but never up and down. They would not even understand what up and down means, or where to look for it. If we should bend their piece of paper, or even roll it into a tube, they would never realize that their two-dimensional world acquired a curvature through being "warped" into the third dimension. It would amaze them to discover that, by going in the same direction, they could eventually wind up right where they started from. So our ancestors assumed the surface of the ocean to be flat, and so were they amazed to find that, by always moving forward, they could go around the world, due to the curvature of surface into the third

dimension.

As we could cause a line to enclose a portion of a surface by curving it into the second dimension, so can we cause a surface to enclose a portion of what we call "space" by warping that surface into the third dimension. For example, we could take a piece of paper and fold it into a hollow package of three dimensions. In doing this, we would cause the two-dimensional paper surface to acquire three-dimensional characteristics. Please note, that this would enable the flattops, living within that surface, actually to travel in all three dimensions, though they could never realize it, for they would still remain within their two-dimensional surface world. Again we note the superiority of a curved surface over a straight one.

Now, having seen how easy it was for us to warp a line into the second dimension, and to warp a surface into the third, would you concede that there may be means of warping our space into the fourth dimension? And, having seen how a point was not aware that its line was curved, and as flattops were not conscious of the curvature of their surface, would you concede that, if our own space was curved, we would remain perfectly ignorant of this condition? All right! Then we agree that our space may be warped or curved, permitting us to move in four dimensions, without our knowledge of this fact. We have just seen how flattops could travel ever forward around a piece of paper rolled into a tube, thus getting back to their starting point. Then is there anything impossible or incomprehensible in Einstein's assumption that perhaps our space is also curved or "rolled up" like the flattops' tube, and that, by leaving the earth in a space ship and always going forward in what we think to be a straight line, we could get right back to earth from the opposite side? Does this explain the meaning of the "curvature of space"?

NOW let us move from the world of the flattops into the third dimension. How to accomplish that? Remember that to generate a surface we had to slide a line in any direction, except that of its length. Then, similarly, to produce a solid body of three dimensions, should we not slide a surface in any direction, except those of its length and width? We find this assumption to be correct. To demonstrate it we simply bore a hole in the top of your new mahogany dining room table and fit a plug into it flush with the surface. (Oh, she won't mind it, if you tell her it is for science's sake!—Ed.). Now, as we slide the plug out of the hole, we see that a three-dimensional body is produced in the shape of a plug. Having observed that, by using the same method, we succeeded in adding an extra dimension to a point, a line and a surface, we should be now in a position to formulate the following rule: To add an extra dimension to anything, you simply slide it in any direction, except those of the dimensions it already possesses. Thus, to convert a solid body into a four-dimensional ob-

ject, we slide it in any direction we choose, except those of its length, width and height. Elementary, Watson, as long as you do not ask me just yet, what that unknown direction is!

Please note that, to start with, a point was virtually nothing. As we converted it into a line by adding one dimension to it, we endowed it with a distinctive individuality. As we converted a line into a surface by adding a second dimension to it, we gave it form or shape. As we converted a surface into a solid body by adding a third dimension to it, we gave it mass and substance. This means that, the more dimensions an object has, the more substantial and real it becomes. From this we have to conclude that four-dimensional objects are much more tangible and real than our material solid bodies. Having observed a mere "nothing" acquire individuality, form and shape, mass and substance, through the addition of dimensions to it, what new quality could we expect the four-dimensional objects to have? We know that this new quality should immeasurably extend and diversify the individuality, form and substance of a solid body and add a new something to it, which would make it just as vastly superior to solids, as solids are to surfaces, surfaces to lines and lines to points. Well, have you guessed it yet? This new four-dimensional quality is that of changeability or animation, which we call "life."

Thus, all inanimate objects partake of only three dimensions. The physical bodies of living beings are also three-dimensional. But that elusive something, which endows them with a quality we call life, is four-dimensional in nature. A dead body is but a three-dimensional object, but a body endowed with life is a three-dimensional body partaking of four-dimensional characteristics, which animate it. I hope you realize that YOU are not your clothes, your meat and bones and even not your nerves and brain. You are that mental something which inhabits, animates and uses all these things. The real YOU has to be, and is, a four-dimensional being! All right, I shall wait while you wipe the sweat off your forehead and swallow some headache tablets!

THEN life itself is a four-dimensional process. How does it work? Can we explain its operation in our three-dimensional language? No reason why we cannot, as long as we possess a little imagination. Observe that, if we bisect a solid, its cross section will be a surface; bisecting a surface, we obtain a line, and bisecting a line, we get a point. This means that a point is but a cross section of a line, which is, in turn, but a cross section of a surface, which is, in turn, but a cross section of a solid, which is, in turn—what? Do not stop now, carry it out to its logical conclusion! What could it be but a cross section of a four-dimensional object? This leads us to the inevitable conclusion that all our three-dimensional solids must be nothing but cross sections of much more tangible and real four-dimensional

objects. Furthermore, if a point is a cross section of a line, a line is a cross section of a "plane" inhabited by our imaginary flattops, a plane (or surface) is a cross section of the "space" in which we live, then is our space but a cross section of a "continuum" in which exist four-dimensional beings?

But then, our whole material universe is merely a cross section of a much more real and tangible four-dimensional world, which is positioned at an angle to all three dimensions of the "continuum" in which we live and which we call "space." Now, let us carry it still further. If all the solid bodies are cross sections of four-dimensional objects, then are you and I but cross sections of much more real, tangible, alive and versatile four-dimensional beings existing in that greater world? Why do you recoil from this perfectly logical idea? Is it because of the same mistaken sense of self-importance as that which caused our grandfathers to recoil from the idea that our earth was not the center of the universe? Is it because such a conception interferes with your present religious or philosophical views? I thought I asked you to leave all the unnecessary baggage behind you? Why don't you leave it in a check-room and pick it up when you return? (If you still want it then.)

Just think a moment and consider all the two-dimensional cross sections of your own body. Could you discard any one of them, or could you name one as unimportant to yourself? And, after all, what are you but the sum-total of an infinite number of two-dimensional cross sections stacked together? Although each individual cross section is just as fully "you" as any other cross section, none, taken by itself, is the whole you. All man's religions and philosophies talk about our "real and greater Selves," our Egos, our Souls, which are supposed to be our true selves, yet much greater and wiser than our puny earthly selves. Do you begin to see how this conception can reconcile this paradox and go a long way toward proving and explaining the truth behind the confusing and unconvincing philosophic teachings?

Let us resort to a few simple illustrations to help us understand it better. They say, no matter how you slice it, it's still bologna, which simply means that every slice, no matter how thin, is just as much bologna as any other slice. But, just suppose that we had a length of bologna in which the stuffing varied in color, texture and composition throughout its length. Would not all slices differ from one another? Suppose that we sliced the whole thing paper-thin, photographed each slice on motion picture film and then invited an unsuspecting friend to view the resulting picture on a screen. What impression would he get and what would be his logical conclusion? To him it would appear as a picture of an object strangely resembling a single slice of bologna, except for its continuous variations in appearance, its shrinking toward the end of the

picture and its final dissolution into nothing.

The chances are that he would say: "This was undoubtedly a living thing! It must have been, because I watched its life processes on the screen and even saw it shrivel up and die before my very eyes!" Does this suggest anything to you? Can you visualize all phases of human life from childbirth, through adolescence, maturity, decline and death, as a series of consecutive "slices" or cross sections of a four-dimensional being, who is the summary of them all? Can you visualize your earthly self as but a single slice of this four-dimensional YOU, progressing slowly from cross section to cross section of your own greater Self? Or, to put it another way, can you imagine this greater you as slowly passing through the "continuum" (space) in which you live in the form of its three-dimensional cross section? Can you see how, as it goes along, you would be undergoing all sorts of changes to correspond with its consecutive cross sections exactly as did our projection of consecutive slices of bologna on the screen? I wish to make it clear at this point that bologna is used here merely as an illustration and that any actual resemblance of persons living or dead to a slice of bologna is their own fault and cannot be blamed on the author!

FOR our next illustration we shall call on our old friends, the flattops, who live in a two-dimensional continuum we call a surface. This time, let us imagine them as inhabiting the surface of water in a glass. What would a flattop see if we should take a wire, twist it into a corkscrew shape and start slowly passing it through the water surface? As he could only see the intersection between the wire and the water surface, to him it would appear as a "dot" running around in an orbit. If, instead of a helically bent wire, we used one irregularly kinked, this dot would appear to the flattop as moving back and forth in an erratic and unpredictable manner as if endowed with life. If, on the other hand, the wire was straight and we lowered it in the direction of its length, the intersection would remain in the same position and the flattop would call it a stationary or inanimate object. Now let us pass a sharpened pencil through the water. The flattop would first notice it as a tiny point, then he would see it grow into a circle, then change into a hexagon, remain unchanged for a while and then shrink and disappear. And he would say that it was born as a tiny baby which grew through the circle stage into a mature hexagon and which, after a prolonged existence, shiveled up and died.

What makes the flattop decide that the wire or the pencil are alive? He thinks that the kinked wire is alive because of the nature of its motion. He thinks that the pencil is alive because of the nature of its changeability. Many things move and undergo changes and still we do not consider them alive. A ball rolling down an incline has motion, a cake of ice changes into water, yet we

do not consider them alive. But, should you see a ball roll part-way down, then stop, roll up a little, pause a while, roll down, stop again, go fast then slow, what would you say? You'd say "by gosh, that thing must be alive!", Now you can put your finger on it. We call things alive when their behavior is unpredictable as far as we are concerned. Please do not drag such things as weather into this argument, for we are only talking about objects. And besides, the weather is predictable, the record of our Weather Bureau notwithstanding! If you know enough about fluid mechanics, you can mathematically predict the exact path a rubber ball will take when thrown into a stream, but you could never figure out which way a fish would swim. (We assume, of course, that no female fishes are anywhere around at the time.)

But all this is too simple. So let us give our flattop a real problem. For our next experiment we shall get into a bathtub full of water. (What, together? But suppose that our reader is a lady? Wow!—Ed.) Now, Rap, please keep your mind on science! Well, dear lady (ouch!), let us see you stick out your forearm from under the water surface, and then very slowly draw it downward until the tips of your fingers become submerged, and let us watch this performance entirely from the flattop's viewpoint (not Rap's). Now you can well imagine the disadvantages of being just one dimension short, because, alas, all our flattop could see would be the cross section of your forearm where it enters the water surface. He could see absolutely nothing of what goes on above or below the water.

We see our flattop first noticing the cross section of your forearm as a somewhat irregularly oval two-dimensional object. As your forearm goes down, he sees it change in size and shape, from which he concludes that it must be another two-dimensional living being similar to himself. As your wrist becomes submerged and as the base of your thumb enters the water and its cross section separates from your hand, he naturally thinks that he is witnessing the birth of a child, which moves away, then shrinks and dies. So he concludes that this birth was a failure. But then your fingers become submerged and the cross section of your palm divides itself into four new and smaller circles. "Aha," says our flattop, "the thing is using a new trick, it tries to propagate itself by division into four offspring." And, as your fingers sink below the water surface, he says: "To bad, this was a failure too, the young ones all died before reaching maturity, for they never attained the size of their parents."

NOW, as we have assumed the flattop to be endowed with mind on par with humans, we can just see him speculate on what this is all about. Where do the flattops come from, where do they go after they die, what is the purpose of their life? Poor flattop, his range of information being limited to only two-dimensions, we have

to be lenient with his mistaken views. He naturally assumes himself to be the center of God's creation. To him, his world comprises everything that is tangible and real. He laughs at those upstarts and dreamers who claim that there is a third dimension inhabited by beings much greater and wiser than himself. His vanity is hurt when he is told that he is merely a cross section of one of these beings, who live, love and laugh, experience pains and pleasures, joys and sorrows just as he does. But still he has to have an explanation of some kind. So he concedes that there must be a "hereafter," where all flattops go after they die; where they have to undergo a judgment; where they are rewarded for their virtues and punished for their sins. So he divides this "hereafter" into a heaven for good flattops and a hell for bad ones.

Then, to determine what constitutes sins and virtues, he works out an artificial code of morals in which everything is divided into good and evil. From this he makes a list with sins on one side and virtues on the other. He credits God with everything he terms good, and as for evil . . . oh well, he probably invents a devil on whom to blame all his mistakes. Then he proceeds to warp his own life and make himself thoroughly miserable by trying to live up to his own erroneous standards in order to be "saved," although he is not exactly certain what he is trying to be saved from. But here is the rub! Due to his limited information and hasty judgment, our flattop somehow has managed to enter everything he really likes and enjoys on the sinful side of his list, whereas the virtuous side he has left barren of all attraction and spice of life. And thus he finds himself fighting his own nature and depriving himself of everything that makes life worth living. In his efforts to prevent others from being happier than he is, he passes millions of laws and regulations, until he can hardly take a deep breath without violating one of them. The strangest part is that he imposes all these restrictions in the name of his religion, which says: "The Truth shall make you free." Of course, he does some cheating on the side, as long as no one can catch him. And so he lives, dishonest with himself, with his fellow flattops and even with his God. And every time he looks at his list of sins, he wonders: "How could some of these things be bad, when they are so good?"

Poor deluded and half-blind flattop! What an ungodly mess he got himself into. I really regret having asked you to sit in that bathtub! If he could only stick his head into the third dimension and see what you and I can see! How easily could we, in our superior three-dimensional wisdom, show him just where he is wrong! Or . . . could we? Somehow I have a strange feeling that our own conceptions are not much different from his two-dimensional viewpoints. Perhaps we ought to take a peek into the fourth dimension ourselves, before definitely making up our minds about anything at all. Suppose that we are just

as wrong as the flattops. What a horrible thought! (Hey, go easy on those headache tablets, I may need some myself before long!) Do you suppose, if we could find a way for the flattop to look into the third dimension, this might provide us with a clue as to the means whereby we could look into the fourth? Sounds crazy, you say? Well, just remember, most people who suggest anything unusual are always considered crazy, until they get a chance to prove that they are right.

As I was reading this to my seventeen-year-old daughter, just to determine her reactions and her ability to understand, she stopped me at this point.

"But, Dad," she said, "don't you think that you have done enough beating about the bush? Now, if length is 'back and forth,' width is 'right and left,' and height is 'up and down,' then which way is the fourth dimension?"

I smiled at her wisely, while my mind did some lightning-fast thinking, for I knew then that my whole reputation was at stake.

"I am glad you asked me," I said. "Cannot you see how obvious and simple it is? There is only one answer to it, and it was right before you all the time. The fourth dimension is 'in and out'."

"Well, if you had said so in the beginning," she reprimanded me, "you could have saved yourself the trouble of writing all this stuff, because it is perfectly clear to me how we can come into this world, live our lives and then go out again into the fourth dimension. But all this business about bologna and the flattops is just plain silly."

Oh well, pass me the tablets and let us keep going!

PEOPLE have a habit of slighting the importance of simple things. They fail to realize that all things in nature, both simple and complicated, obey the same laws and principles. The simpler is the phenomenon, the easier it is to observe and recognize the fundamental rule which is behind it. To illustrate this fact, let us go back again to our experiment with a glass of water and a piece of wire. We note that around the point of intersection between the wire and the water surface, the surface becomes "warped." It reaches up and climbs up on the wire. It seems as if the two-dimensional surface "senses" the presence within it of something having more dimensions than it, itself, possesses. So it develops a "desire" to acquire the extra dimension it ordinarily lacks. By climbing on the wire it warps itself into the third dimension and thus partakes of three-dimensional characteristics. If this assumption is correct, then, should we give the water surface something to really hang onto, would it not take advantage of such an opportunity and climb much higher? Let us replace the wire with a small diameter glass tube and see what happens: We were right! The water surface climbs within the tube to a considerable height into the third dimension. But, what about

a flattop who happens to be trapped inside the tube? He rises with the surface into the third dimension and, from his new point of vantage, he can look around and see just what is going on in our three-dimensional space. Aha, this certainly looks like the clue we were seeking! Then all we need is a four-dimensional tube inserted into our space. We climb into the tube, our space stretches "out" into the fourth dimension, carries us with it, we look around and see . . . no, I won't tell you, I want you to be surprised when you get there!

But, are we not jumping at conclusions? How do we know that our space behaves exactly as the surface? Just what does our science say about this tendency of fluids to climb above its normal level? Our scientists see this phenomenon and give it a new name, "capillary attraction," which they "explain" by the action of surface tension combined with the specific "angle of contact," characteristic of the materials involved. But, what causes fluids to form this angle of contact? Well, they say, it is due to the action of molecular forces and the "surface energy" of the liquid. Do not ask them to explain anything about this surface energy, for they will merely give you another, and just as ambiguous scientific term. See what I mean? The real answer is that they cannot explain it. It looks as if from here on we are on our own, and the only thing to do is to keep on experimenting.

Let us place two corks on the surface of water. We note that they immediately become surrounded with surface-warps. As long as they remain too far apart to "notice" each other, they float freely. But just let them get close enough, so that their respective surface-warps come into contact, and what happens? The corks rush toward one another and stick together as if magnetized. The action is exactly as if the two surface-warps recognize each other, rush into each other's arms and try to become one warp, enclosing both corks within their mutual embrace. Now, if everything obeys the same one law, why should we not assume that, whenever a four-dimensional body intersects our three-dimensional space, a "space-warp" is produced around the intersection? That this space-warp is due to the "desire" of our space to acquire the fourth dimension it ordinarily lacks? That within that space-warp there exist four dimensional conditions? That, when two space-warps get close enough together to touch or overlap, they will pull toward each other in the effort to become one space-warp embracing within itself the solid objects, which occupied the intersections of the respective four-dimensional bodies with our space? Well, our scientists tell us that all solid objects are surrounded with what they call gravitational fields; that, due to the interaction of these fields, all solid bodies are attracted to one another; that gravitation is closely connected with "curvature" of space. Then what is wrong in saying that gravity in three-dimensional space is the same

thing as 'surface tension in the world' of the flat-tops, and that both are due to the desire of these continuums to acquire the dimensions they ordinarily lack?

Of course you may think that the word "desire" cannot be properly applied to such inanimate and almost abstract things as space or surface, because desire involves mind. Yet there is nothing more elusive than mind. Your body, under a microscope, resolves itself into a mass of cells. The cells, in turn, are composed of molecules, atoms, electrons and protons, whirls of pure energy, where all distinctions vanish. Under strong enough magnification there is no difference between your brain and a piece of cheese. Then where does mind begin and end? Is it in the brain alone? But trees and flowers have no brain, neither do crystals, nor does our solar system or an atom. Yet, everything is intelligently arranged and operated. This shows that intelligence can exist without a brain and that intelligence permeates everything in existence. And, if desire is a mental function, why cannot desire manifest itself everywhere where intelligence is manifested?

LET us return, however, to our wire in a glass of water and see what other startling things we can learn from such a simple laboratory setup. Here is an interesting and significant fact. As long as our wire remains clean the water surface reaches up around it and tries to pull it under, but, should we oil or grease the wire, the action becomes reversed. It seems as if the water surface does not like grease, so it bends down and tries to push the wire out. To prove this fact we smear a needle with grease and lay it gently on the surface of water. What happens? The surface bends under the needle and supports its weight, preventing it from sinking. This is a clear indication that gravity can be reversed and that all we need for it is a four-dimensional equivalent of grease. Just let us smear a spaceship with my new secret formula for four-dimensional grease and watch it float on space-warps! (Write Oliver Warbucks for our stock prospectus, but hurry, because the shares are going fast.)

Our scientists claim that the force of gravity varies in accordance with the Newton's inverse square law, which means that it extends, ever attenuating, indefinitely into the interstellar space. This is a bold assertion, for, having no spaceships, our scientists could never measure anything outside a very narrow range adjacent to the earth's surface. Neither is such a conception substantiated by our observations of the surface-warp. The floating corks do act as if their attraction is subject to the inverse square law, but only within a very narrow range, beyond which all attraction disappears entirely. Why should we not assume that gravity also disappears entirely beyond a certain range?

Relying on the inverse square law, astronomers explain that planets are being held in their orbital positions by the precarious balance between their

gravitational attraction to the sun and the centrifugal force of their orbital motion. And so they are, but only as long as this perfect balance remains undisturbed. If the Newton's law controlled our system, it would have flown apart a long time ago, because that law does not account for the return of a planet to its original orbit after it had been pulled out of it by the attraction of some other massive body, such as Jupiter. According to the inverse square law, such a pulled-out planet would never return to its original position. If you speeded up a planet in its orbit, its centrifugal force would increase. The force of gravity remaining the same, the planet would move out of its orbit, pulling away from the sun. This, in turn, would reduce the gravitational attraction, causing the planet to move still further away from the sun, and so on. Yet, there is something that always brings it back and puts it where it belongs. What is it?

Let us visualize the space-warp around a star as a group of concentric stationary waves, like wrinkles in water around a fallen stone. If they were suddenly frozen into immobility, they would appear as a series of spaced circular "grooves" with "humps" between them. Of course, we understand that this is a mere illustration, for in reality these grooves and humps are spherical and not circular and, in addition, the space-warp itself is elastic and stretches this way and that under the constant influence of other overlapping warps. However, it is easier to understand just what takes place, if we visualize the planets as rolling in such grooves like marbles. Now, should a planet get pulled out upon a hump by the attraction of some other large body, it rolls right back into its groove, as soon as the disturbing influence has passed. Should the attraction prove great enough to pull the planet over the hump, it would settle into the next adjacent groove, but never in between. How do we know that there must be such grooves, or rather spaced concentric shells of force of varying intensity?

ASTRONOMER BODE observed that distances of planets from the sun run in a definite numerical proportion, which cannot be explained by the inverse square law alone. Such an arrangement can only be accounted for by a periodical variation in the intensity of space-warp with the increase of distance from the sun. This numerical relationship is extremely interesting, but, as I promised to refrain from figures, we shall skip it here. I only wish to point out that, when Bode established the theoretical positions of these grooves with a planet in each groove, he found one of the grooves unoccupied. So he predicted that a planet will be found within that vacant groove. Accordingly, astronomers made a search and, sure enough, they soon succeeded, thus proving the correctness of Bode's assumption. However, it was not a planet that they found. It was a belt of fragments of the exploded and destroyed Lost Orb, forever circling in her appointed groove

around her Mother-Sun. The finding of the Lost Orb meant much more than just a verification of a scientific theory. It also proved that "God geometrizes," which means that the structure of our universe is not an accidental or haphazard conglomeration, but an orderly and systematic arrangement, based on mathematical relationships, which can be figured out by man. It means that the Supreme Intelligence, which designed this Cosmos is not an alien unknowable mentality beyond the hopes of man to comprehend, but that its mental processes are akin to those of human mind. It means that God thinks the way man does, the difference being only in degree.

An atom is a replica of a solar system and the space-warp around a proton is similarly constituted and proportioned. The electrons, like planets, roll in their respective grooves around the proton and it takes force to pull them out of their orbits. Like planets, they will not stay on the humps, but can only jump from groove to groove. It takes a definite amount of energy to move an electron from its groove into the next adjacent one. This minimum amount of energy required to make a single electron jump over the hump is called a "quantum." Thus, half a quantum or even nine tenths of a quantum will not accomplish anything. An atom can only absorb (or release) energy in one quantum doses, for its energy absorption (or release) is measured in jumps of electrons from one groove to another, and each such jump requires, or releases, as the case may be, one full quantum of energy, no more, no less. As atoms are the smallest energy absorbing or releasing units known to man, a quantum is the smallest effective dose of energy discovered so far. So much for the quantum theory reduced to an understandable basis.

Space-warps around large bodies are extensive, but too diffused to produce any noticeable four-dimensional effects on human mind, although man's perpetual instinctive striving to get in touch with his greater Ego is definitely an unconscious effort to "warp" himself into the fourth dimension and thus to partake of its astounding possibilities. Let those who doubt that space-warps affect man's mind, permitting him to "see" beyond the three dimensions, recall a recent case where a girl born blind "saw" the flash of the atomic bomb explosion from many miles away. Do the atomic bombs create space-warps? And how! However, you do not have to go to such extremes, for every magnetic field is a space-warp. Space-warps around small non-magnetic bodies are so confined that only by polishing and lapping or by great pressure can we produce the gravitational phenomena known as adhesion, such as we see in Johansen gauges and powder metallurgy.

And, by the way, there is one liquid whose surface tension is just the reverse of that of other liquids. In other words, instead of reaching up, like water on a clean wire, it reaches down, as if the wire were greased. That liquid is mercury.

And do you know what is the four-dimensional equivalent of mercury? The ancient sages claimed that it is mind! If they were right, then the human mind can make its own space-warps and look into the fourth dimension! But, in order to create four-dimensional conditions, one has to operate from above and beyond them. Would not this mean that man's mind can reach into the fifth or sixth . . . no, I cannot do this cruel thing to you, especially as you have just run out of the headache tablets! Let us just stay within the simple and understandable four dimensions.

DISTURBANCES in the four-dimensional continuum are often projected into our space, where they manifest, themselves as tornadoes, waterspouts and freak electric and magnetic storms. During such storms intense space-warps are generated which often actually pull out objects, animals and people into the fourth dimension. Sometimes these vanish utterly, but in most cases they slip right back into our space with no damage done. There are occasions, though, when they materialize in a portion of space already occupied by something else. And so we find after such storms pieces of straw projecting through a heavy board or through an otherwise undamaged pane of glass, thin reeds and sticks completely piercing thick trunks of trees, a ladder with a tree between its rungs and other unaccountable phenomena.

It is significant to note that many similar occurrences have been recorded by accredited societies for psychical research as taking place during spiritualistic seances, where a number of people use their minds in a concerted effort to penetrate the barrier of our three dimensions. Again, in times of great stress, as when a person thinks that he is drowning or falling to his death, a mental space-warp is unconsciously created and all the phases of his life are seen by him as simultaneously existing and viewed all at once within a fraction of a second. Such things as visions, prophetic dreams and extra-sensory perception, are easily explained as glimpses of the fourth dimension. Are our greater Selves, who live in the four-dimensional continuums, the giants and titans of Richard Shaver? Are they the pseudogods of *Oahspe*? Are the space-warps the same as *Oahspe's* vortices? Are there other worlds belong the fourth dimension? Undoubtedly there are. Then where does the universe begin and end? Or is there any end? How come, our modern science with its radar, atomic bombs and wonder drugs can tell us nothing about such things?

Man is a strange creature. He divides his conception of the universe into four different versions: scientific, philosophical, religious and "practical." The fact that none of them agree with one another does not bother him any. It never dawns on him that if they all disagree, then three of them are bound to be wrong, and, if three out of four are wrong, the chances are

that the fourth one is also wrong. Now you would think that our vaunted civilization would produce a crop of brains who would recognize the absurdity of such a situation and have it rectified. Alas, they are not even interested. Our religions completely disregard the facts of science, our scientists would not even discuss so-called "spiritual" matters, philosophers just speculate on abstract subjects and as for "practical" flappings they study science because it is taught in school, accept religion because they want to be "saved," laugh at philosophers because they cannot understand them and think that they are all nuts, and all the time they follow their "practical" viewpoints, which are based solely on what "everybody else" says and does. Such are the people who are trying to solve the problems of the atomic bomb, world peace, industrial disorganization and economic disruption.

Man needs a new viewpoint. He needs a new science, religion, philosophy and ethics, which would all agree with each other and with the universe he lives in. Someone said that man is an animal consisting of three parts: soul, body and clothes. To take care of these three phases of human nature we have religions, concentrating on his soul, science, which is only interested in his body, and "moral guardians," to whom his clothes seem to serve as an infallible index to his moral status (witness the arguments against the exposed bosom gowns!). Religions contend that man's nature is all wrong and that he should fight it to be "saved." Scientists contend that man is a rare "accident" in nature, that the whole universe is but a lucky combination of accidental factors and that intelligence is but a chance result of chemical reactions in the brain. But the first prize goes to the "moral guardians." They say that the human body is "God's own image" and then declare that image indecent! They should wash their mouth with soap! Now such absurd conceptions could be excused during the Dark Ages, but this is the enlightened and "civilized" twentieth century, the era of electronics, of atom bombs, of the Four Freedoms (remember?)!

I WANT you to understand that I have a great respect for the accomplishments of modern scientists. I only say that their science stops short of its mark, because it seems to be afflicted with a mental barrier, a self-imposed taboo, which always blocks its reasoning at a certain point. It seems to be allergic to two very simple but vital questions. These questions are "why?" and "wherefore?". The first one inquires into causes, the second tries to ascertain the final purpose and the logical outcome of everything. Who but the scientists, equipped as they are with all the scientific data, possessed of the best and the most analytical brains, could be in a better position to provide us with a logical, unbiased and honest answer to these questions? "Science," they say, "concerns itself with facts, not with metaphysics, religious concepts or philosophic speculations."

Among our scientific minds there are many who say that they believe in God, but they are always careful to keep their Sunday morning views from their scientific dissertations, lest they be accused of being "unscientific" by their colleagues.

But do you want to know a little secret? Well, I can prove to you that modern science actually believes in magic! Let us consider briefly its explanations of the creation of the universe and I am sure that you will agree that it is so.

"In the 'beginning,'" says our science, "all space was filled with a primordial hot cosmic gas, consisting of uniform mixture of molecules of all the chemical elements."

Now, you and I can see that this is not, the "beginning" at all. Where did the gas come from, what caused the formation of various elements, what raised the temperature of the mixture? Science evades the answers to all these questions. All right, what happened next?

"Due to the internal instability of this gas, it started separating into globules or clouds. These began contracting due to the gravitational forces and, as they contracted, they acquired rotary motion and their temperature increased to super-incandescence. Thus our stars were born."

Why should a uniform mixture become unstable? The only way to account for such formation of globules and their subsequent rotation is through appearance of centers of attraction within the mass, of "whirls" on the order of "vortices" of *Oakspe*. The force responsible for these whirls would obviously have to come from outside the three-dimensional space, as there was nothing in the "cosmic gas" to cause such action. And it simply could not have happened by itself, as our scientists claim.

"Next," says science, "the same internal instability caused the stars to combine into separate swarms, which we call island universes, and of which our own galaxy is one. These were prevented from collapsing upon themselves by the centrifugal force of their rotary motion. Then all these island universes started flying apart from a common center. They are still flying apart today and the farther they fly, the faster they go. Hence, the 'expanding' universe."

Now this is going a bit too far! Suppose, we grant this mysterious "instability," suppose we say that the chemical elements just happened to form an explosive mixture which caused it to blow up and sent it scattering in all directions. But none of this accounts for the continuous acceleration, which can only be produced by constant application of some force. As island universes are not equipped for self-propulsion, like rocket ships, and as science does not provide us with any logical reason for this extraordinary behavior, the only answer is: "It must be magic!" Yes "magic" is the scientific answer to the cosmic gas, to the formation of elements, molecular motion, gravitation, rotation, condensation, expansion and acceleration. But, then, who waved his hand and said: "Hocus pocus"? "Do not ask

such silly questions," says science, "cannot you see that I am busy developing a super-ultra-sub-atomic bomb, which will make Hiroshima look like a soap bubble?"

And yet, how understandable it all becomes if we assume that all of this has an intelligent plan and purpose; that this Intelligence is operating from beyond what we call space; that our whole space is but a giant vortex projected from the fourth dimension; that, due to the rotation of this whole vortex, centrifugal forces are produced, which account for the acceleration. We cannot assume these things, however, until we drop our flattop viewpoints and grant that there may be something after all to what we disdainfully dismiss as metaphysics or just plain "superstition." Now just a couple more simple questions and we shall leave science to its endeavors of making our world a better place to die in. How to account for our solar system and the planets in it?

"The planets were formed," continues science, "through an accidental near-collision of our sun with another star, which produced tidal disruption of the sun, causing it to throw off into space portions of its substance. These settled into orbits in accordance with the inverse square law and formed the solar system."

IT HAS been previously pointed out that the inverse square law does not account for the mathematical positioning of planetary orbits. The question we would like to ask here is just what are the chances of there being any other inhabited planets in the universe besides our own?

"The chances are about one in several billion. As our galaxy contains some 40 billion stars, our sun may be the only star with a planetary system. Of course, before the universe expanded too much, the probability of such near-collisions between stars had been much greater. But then again the range of conditions suitable for life is so narrow, that such planets must be very few."

So, life is a rare "accident" indeed, according to our science! Even with their primitive, non-electronic telescopes astronomers estimate that there are about 100 million island universes within their range, and each one contains many billion stars. Does it not make you frightfully lonesome to think that the "microman" who lives on a tiny speck of dust called Earth may be the only intelligent creature capable of appreciating this majestic project? Such is the absurd blind alley in which modern science finds itself today. Let scientists drop all their researches and concentrate on the solution of just one simple, but extremely important question: "Why is a horse?" You laugh, and yet, if they could solve this question, they would also know why is a man, why is a universe and why is everything. And, knowing the reason and the purpose of the whole creation, they could determine just where man should head in. It should be obvious to anyone that modern man is moving toward self-destruction, and this could only mean that he is headed

in a wrong direction. Man's self-destruction could hardly be the purpose of his long evolution from a blob of slime.

Let us ask ourselves here a few sensible questions: Are not animate objects superior to inanimate ones? Is not a worm superior to a stone, a dog to a worm, a human being to a dog? Is it not evident that all forms of life are progressing toward greater awareness, greater intelligence, freedom of action, individual self-expression and utilization and enjoyment of one's environment? Are not all evolutionary processes directed toward the development of intelligent life? Intelligent life then must be the real purpose of the whole creation! From this there can be only two conclusions. Either the universe is swarming with life, like a drop of water under a microscope, or else the whole creation just started by itself from nothing and there is no rhyme or reason to anything in it. Which will you have?

Now analyze yourself a little. You could not move a single finger, unless you had a desire to move it. Desire then is the prime-mover behind every action. Man fools himself with such imaginary things as will-power, which is supposed to enable him to act against his desires. But this is merely self-deception. No matter what man does, he follows the desire which happens to be uppermost at the time. He quits smoking because his desire to brag about his "will power" is greater than his desire to keep smoking. If his desire to keep smoking were uppermost, no will-power in the world would make him quit. So, you might as well stop wasting money on will-power courses and learn, instead, to cultivate and nurse the desires you choose to follow. I am not deviating from my subject of the fourth dimension; I am merely leading up to something.

Desires always have some personal gain in view. The greater is the anticipated gain, the more intense is the desire. Where there is nothing to gain there cannot be any desire and there cannot be any action. Thus, no matter how much you try to fool others and yourself, there are no such things as absolutely unselfish desires or actions. "Verily I say unto you they have their reward." No one ever desires anything painful or unpleasant. All desires are directed toward pleasure, comfort, freedom, betterment and enjoyment. A desire is but an instinctive awareness of something one lacks and needs to make his being more rounded out and complete, to make his life fuller and more enjoyable. Hunger is but nature's call to fill an empty space in our stomach. Thirst for knowledge is but an urge to fill a vacancy in our mind. A desire for a specific experience is but an urge to fill a gap in our emotional nature. All revolutionary changes in human beings, animals and plants are due to instinctive desires for greater, fuller, more intelligent and enjoyable life. Desire then is the force solely responsible for the process we call evolution. As all desires are directed toward pleasure of some kind, this means that the evolution aims at the

development of intelligent beings capable of enjoying life. This also means that life is intended for enjoyment and not for misery and self-denial. Then should we follow blindly all our desires? Do not be so crude. What do you think your head is for? Is it just something "to sleep on" as says my little four-year youngster? If you need money, do you grab it anywhere you see it and land in jail, or do you use your head and figure out a way to earn it? Desire tells you what you ought to have; it does not tell you how to go about it. Desires are the problems posed by nature to make you use your wits and thereby develop your mind, which is the only thing you can take with you after your body falls apart and lands you in the fourth dimension.

BUT man has elected to be a flattop. He says that desires do not come from his inner nature, but that they are "temptations of the flesh" and should be fought against. He preaches mastery and subjugation of all desires. But a wise master is never a subjugator! To become a master of anything means to learn everything about it, to become thoroughly familiar with it through constant working and experimenting with it. Then man's idea of mastery is all wrong, too! Having erroneously decided that his desires come from "flesh" man condemns his body and blasphemously calls it indecent and obscene. He says that "God is love," and then condemns virtually everything connected with love. He says that "Truth shall make you free," and then surrounds himself with a network of rules, restrictions and regulations, which are all opposed to truth, because they are opposed to freedom. Thus, man's "spiritual" viewpoints lead him into the same kind of a blind alley as science does. Man actually stands in his own way, because he is afraid to look into the face of Nature, he is afraid of what he finds within his own mind, he is afraid of his desires, of his body, of love, freedom and of his God! How does he manage to get along with himself?

Now, let us see if we can straighten out this mess. Scientific data tell us that everything is undergoing an evolutionary process. Since to "evolve" means to "turn outward" or to "expand," our scientists cannot surprise us with the statement that this is an "expanding" universe. But our idea of expansion is not confined to island universes. It includes everything from humans, animals and plants to minerals, substances and even continuums. Expansion is not limited to physical size alone. Human mind expands through the accumulation of knowledge. Continuum expands through the addition of dimensions. Human soul expands through the accumulation of emotional experiences. As you are reading and pondering over this article your mind expands by leaps and bounds. It reaches out beyond its ordinary spheres of operation and partakes of knowledge not contained in our three-dimensional continuum. And, when you finish

reading, your mind will not be the same as when you started—it will have taken a short-cut across an evolutionary spiral, and it will have expanded quite a lot.

All evolutionary progress is accomplished in the same general manner. Each thing or being, coming into contact with anything it lacks and needs, becomes aware of that lack and strives to fill the vacant space within itself in an effort to round out its nature and thus become more perfect. The ultimate perfection, then, is the end product of every evolutionary process. Religiously speaking, we might say that the whole creation is "going home" to God, for only God is perfect. No change or action of any kind can take place without application of some force. As everything in existence is constantly undergoing evolutionary changes, there must be a Universal Force in operation throughout the Cosmos which ever urges everything toward that perfection.

Our materialistic science is reluctant to acknowledge the existence of such a single Force, because then it would be forced to acknowledge the existence of a single Central Source from which it comes. And, as the evolution leads toward greater and greater intelligence, it would have to admit that this Central Source must be possessed of ultimate and absolute intelligence. And even this is not all. There is a simple statement known to all, which has more meaning than people realize. It is that "Nature abhors a vacuum." The Universal Force through the language of attraction or desire points out the "vacuums" and urges that these vacuums be filled. Depending upon its field of operation man subdivides this force and calls it by a multitude of names, such as "instinct, affinity, love, gravity, magnetism, desire, sex, capillarity, cohesion or religion." But, if he would but take the side-blinds off his eyes, he could see that it is still the same one Force, forever urging everything toward ultimate wholeness and completeness, which comes when all the vacant spaces have been filled. Surprising, is it not, that the word "Holiness" means "wholeness, completeness"?

Then where is the difference between religion and "scientific" evolution? Truly, the veil which separates religion from science, and blinds them both, is very thin indeed. Can you see now that TRUE religion and TRUE science not only agree, but that they are the SAME. Only blind science and blind belief can contradict each other.

NOW let us take one more peek beyond the veil before returning to our ordinary world. Let us suppose that human life on earth proceeds according to a plan. This plan exists in its entirety in the fourth dimension and is slowly moving through our space. Our physical world constitutes their intersection in which we live, and this four-dimensional plan extends both ways, into the past and future. We can visualize our world as a stage, the scenery and background of which are the consecutive projections of this plan.

As the plan moves forward, the scenery is slowly changing, thus predetermining the settings for the play. All human beings constitute the cast of this Cosmic Drama. Each actor chooses his own role and composes his own lines as he goes along. He can play a villain or a saint, a hero or a martyr, an industrial tycoon or a hobo. There is no fatality or predestination in this plan, for it merely determines the trends of human action. The most remarkable feature of this plan is its flexibility. Its past is fixed, for it is merely a record of things gone by, but its future, although prepared in advance in every detail, has several outcomes.

The plot of this Cosmic Drama had been discerned and read by sages long before man's mind began degenerating toward its present flattop status. They made an indestructible time-capsule as could be made on earth, and in that capsule they placed a complete record of what they called God's Great Plan. The message of this capsule they intended for the present day and age. Accordingly, it will become disclosed within the next few months. Man stands today at a division of the ways. One way leads to his destruction in an atomic holocaust. The other leads to the Great Change, which involves a reversal of virtually all present conceptions, a complete revision of all human standards and the resultant man's rebirth as a New Adam, a wise Solomon, who builds the temple of his world without the use of iron (weapons, violence) and re-establishes the long-lost Paradise on earth.

The Plan consists of three Acts. Each Act has seven Scenes. Thus they are Twenty-one Scenes in all. Scene Seven, the final one of the First Act, is now drawing to a close. The curtain is about to go down on Act One amid the thunder of atomic explosions. If man should take the wrong path now, there may never be any Act Two. The purpose of the message is to point out the proper path and thereby save man from self-destruction. You ask when was this capsule found? Why, the truth is that it was never lost. The clever sages left it in the open, but they contrived it so that its message can only be read by reaching out into the fourth dimension. This was the ingenious method they used for timing their message. They knew that, as soon as man's mind becomes capable of unlocking the secrets of the atom, it will also succeed in unlocking the secrets of the fourth dimension and will thus discover their record.

THE current Scene is entitled "The Bankrupt."

It features the collapse of human idols whom man believed to be infallible as gods and to whom he delegated all his thinking. It shows his idols as losing control over the world, his labor striking, his industry tied up, his food supplies vanishing, his youth running wild, his foolish "experiments" suddenly turning into a disaster and, finally, even his women revolting against his futile measures, his stupid blunders and his hypocrisy, treachery and conceit. All his laws, agreements, treaties, weapons, solemn promises and

threats are to no avail, because man himself cannot be trusted. Everything he does brings just the opposite results from those intended. It is the age of man's mental, political, moral and economic Bankruptcy. Now, that you know that things are going to get much worse before they get better, you can stop worrying and become, instead, an interested observer. There is hardly a day but what there is a major item in newspapers illustrative of this approach of the day when "the indignation will become complete" and when "those that be in Judea will have to run for the mountains."

Scene Eight, which is the first scene of Act Two, is entitled "The Hall of Judgment." This is the next scene of the Cosmic Drama to be externalized in our space. There we see the "underground race," which, by the way, is already in the open, being judged and sentenced. Well, of all things, look who is sitting on the judge's bench! No, what's the use, you would not believe it anyway.

I know just what you feel like saying: "That guy is nuts, he finally went off the deep end into the supernatural!" But there never was and never will be anything "supernatural," for everything obeys the eternal and immutable laws of nature. Only a flattop with his absurd conception of the universe could think up such a senseless term to be applied to everything he cannot understand or is afraid to face. Permit me to end up with a short bedtime story which goes something like this:

"That guy is nuts," said Pinhead Jones, "what does he mean by there being a second dimension at right angles to ours? How can there be any right angle, when there is no place to go except back and forth?"

"That guy is nuts," said Flattop Jones, "what does he mean by there being a third dimension at right angles to ours? The length and width are already at right angles, so any other right angle would obviously coincide with one of them."

"That guy is nuts," said Blockhead Jones, "what does he mean by there being a fourth dimension at right angles to ours? The length, width and height are already at right angles."

"That guy is nuts," said Tesseract Jones, "what does he mean by there being a fifth dimension at right angles?"

Well, dear friends, I shall not bore you any longer. But any time you are perplexed and wish to know what's coming next on the program, do not be a flattop, just poke your head into a strong space-warp and look around. I am sure that you will learn an "Amazing Story" there. What's that? You say, you cannot do it? Why, man, if I can do it, if Richard Shaver can do it, why cannot you? And, if you doubt my word, just where do you think I obtained all the material for this article?

DISCUSSIONS



AMAZING STORIES will publish in each issue a selection of letters from readers. Everybody is welcome to contribute. Bouquets and brickbats will have an equal chance. Inter-reader correspondence and controversy will be encouraged through this department. Get in with the gang and have your say.

Address Your Letters to:

AMAZING STORIES "DISCUSSIONS," ZIFF-DAVIS PUBLISHING CO.

185 North Wabash Avenue, Chicago 1, Illinois

PHILLIPS RINGS THE BELL

Sirs:

The story, "And Eve Was," in your November issue, is one of Phillips' best. Although some of his theories are questionable, the story is as a whole, shall we say, in the remotest way possible. No one can say with certainty how man was introduced onto the earth, but it is plain to see that his power of thought must have come from some source than his own substance. Phillips' explanation of this was the most practical I have ever read. The story reached its highest point of credibility at the end.

Let's have more stories as good as this one!

Richard H. Bostic,
USS RI Paine DE 578,
Charleston Res. Fleet,
Naval Base,
Charleston, S. C.

An editor isn't supposed to intrude with his own opinion, but he thinks this is precisely the way the earth was populated. We liked Phillips' story as much as you did!—Ed.

WILCOX RINGS IT TOO!

Sirs:

I never was one for putting my thoughts into words and this isn't the time to begin, for words cannot express my enjoyment of the story of "The Giants of Mogo" in the November issue of AMAZING STORIES.

It's one of the most delightful stories that I have ever read and not only did it have a hero and a villain; it had 4 heroes! (Paul, George, Green Flash and above all, Gret-O-Gret!), 4 heroines (Katharine, Anna, Purple Wings, and Mama Mountain), 3 villains (Glasgow, Poppendorf, and Mox-O-Mox).

Here's to Gret-O-Gret, our new Super-Hero! Long may he wave!

Please, oh please, give us more stories of the adventures of these grand guys; Gret-O-Gret, Paul and George!

Thanks again for a most enjoyable story and for the excellent way it was written.

Joe L. Medlin
1305 S. High St.
Brady, Texas.

Don't worry, Wilcox will be back with more of the same!—Ed.

REPLY TO MR. STAR

My dear Mr. Star:

In answer to your letter published in the December issue of AMAZING STORIES, I wish to answer the statements you make concerning my facts. You seem to think that I am not telling the truth, even though you graciously admit that I tell "lies with ability."

First as to Pizarro's name. I doubt if I misspelled it. However, I have always thought it *should* be spelled with two z's as that would hiss so much better. I have never admired the swineherd turned conqueror. Living so much closer to the territory of his misdeeds, do you? Honestly? However, as the wish is so often father to the deed, it is possible I did misspell Pizarro. I do know better.

Next, and the most important fact. You state: "There are no tunnels in Peru and never has the government looked for them. The legend about Attahualpa treasures is not as Mr. Gaddis relates it. The treasure, the most important being a golden chain, were hidden in some lake in the mountains and not in secret tunnels.

I believe that a part of this statement refers to what I said and not to Mr. Gaddis. I admit of course, that parts of the treasure were hidden in lakes. However, part may have been hidden in secret tunnels for such tunnels do exist in Peru. For this statement I quote to you from no less authority than Dr. Wm. M. McGovern. Dr. McGovern, author of "Jungle Trails and Inca Ruins," has the following qualifications: He is a Ph.D. from the University of London. Also Fellow of the Royal Geographical Society, Assistant Curator of South American Ethnology in the Field Museum of Natural History, University of London, and the respected author of many books. Concerning

the tunnels in Peru, he has the following to say on page 438 of his entertaining "Jungle Trails" while describing the ancient fortress Saksawaiman:

"Near the fortress are several strange caverns reaching far into the earth. Here altars to the Gods of the Deep were carved out of the living rock, and the many bones scattered about tell of the sacrifices which were offered up. The end of one of these caverns, Chincana, has never been found. It is supposed to communicate by a long underground passage with the Temple of the Sun in the heart of Cuzco. In the cavern is supposed to be hidden a large part of the golden treasure of the Inca Emperors, which was stored away lest it fall into the hands of the Spaniards. But the cavern is so large and so complicated, and so manifold are its passages that its secret has never been uncovered.

"One man indeed is said to have found his way underground to the Sun Temple, and when he emerged, to have two golden bars in his hand. But his mind had been affected by days of blind wandering in the subterranean caves, and he died almost immediately afterward.

"Since that time many have gone into the cavern never to return again. Only a month or two before my arrival the disappearance of three prominent people in the Inca cave caused the Prefect of the Province of Cuzco to wall in the mouth of the cavern, so the secret and treasures of the Incas seem likely to remain undiscovered for the present." By his use of the words "said" and "supposed" McGovern here keeps his facts separate from his theories, as the scientific mind should. As Mr. Palmer so ably pointed out, in his answer to your letter, I try to be specific in my articles, and draw a sharp line between fact and theory, no matter how plausible the latter may be.

I envy you your residence in this land of Peru, which is apparently the site of man's first great civilizations.

L. Taylor Hansen.

Well, there's one answer to Mr. Star, and the next letter is another!—Ed.

PERU'S CAVES DO EXIST!

Sirs:

I have read EVERY issue of AMAZING STORIES, since the middle of 1945. I have enjoyed the magazine very much, however, I think that you publish too much bunk which you try to pass off as the absolute truth.

In your December, 1947, issue you had a letter from a Mr. Marcial P. Star, of Lima, Peru. It seems that Senor Star is calling several of your authors "liars." I thought I might be able to shed some light on the controversy.

Please understand: *I am not interested in anyone's opinion, I am only interested in facts.*

I do not care to attest to the veracity of the statements of Messrs. Gaddis, Kaye, Hansen, etc. Nor do I wish to be interpreted that I am trying to make a "liar" out of Senor Star. However, I believe that I may be able to offer information

which you do not seem to have available.

I forget just which tunnels Mr. Gaddis was referring to, however, in all fairness to Mr. Gaddis, and to keep Senor Star's statement from being taken in the wrong light, I feel compelled to make the statement that **THERE ARE CAVES IN PERU—IN FACT, THERE IS EXCELLENT REASON TO BELIEVE THAT THERE ARE ALSO TUNNELS IN PERU!**

Senor Star makes the affirmation that the Peruvian government has "never" looked for said tunnels. I do not know whether they have or not. I do know, though, that the government does know they are in existence.

I, too, have heard of the "falling stones." However, these sounds were heard in the vicinity of Cuzco! These caves—or, "tunnels"—are known to be in existence, the entrance of one is located on a hill about a quarter of a mile from Cuzco. A number of years ago the government sealed up the entrance to this cave, after several persons had become lost after entering it. There are said to be several exits, of which at least one is supposed to be under the church in Cuzco. It is said that the Incas used this (these) tunnels to hide gold in while the Spaniards were searching for said gold. At least one expedition has entered this tunnel in search of the fabled gold. I believe that they had no luck whatever.

In proof of my assertions I offer the following: "Treasure and Treasure Hunting," and other books by Harold T. Wilkins; "Caves and Treasures in Latin America" (I've forgotten the author's name). At the time that I first heard of these caves I wrote to the Peruvian embassy in Washington, and to the American Geological Society, both of these sources informed me that such caves DO exist. I have a list of books on the subject, none of which I have bothered to read.

However, if there is still any doubt as to the existence of these caves I'll be glad to write an article for AMAZING STORIES covering this subject. I'll quote ONLY irrefutable evidence. As I said before, I am not interested in opinions—I WANT FACTS! I BELIEVE THAT I CAN OFFER PROOF. ANYBODY INTERESTED?

Joseph R. Rhoden, Jr.,
1244 North Dearborn St.,
Chicago 10, Ill.

Well, that ought to prove something! At least, we can definitely say that Shaver-type caves do exist in Peru (that is, caves and tunnels built by an ancient race).—Ed.

OKAY, TELL US WHERE!

Sirs:

I have contemplated writing to you for some time but have put it off until now. I have just finished reading the first issue of the Shaver Mystery Magazine and I believe I know what I want to say now.

First let me say that I am an idealist. Could I have completed my education I would have been a scientist.

I have been very religious in my life (maybe I still am), though I do not believe in Christianity as it is conducted now and never go to church.

I would like to believe in life after death; but it is hard to believe in something you cannot prove.

I do believe immortality is possible. I believe the human family should learn how to work together for the common good. I do not believe in hatred, greed or selfishness, as they are a man's worst enemy.

I have many friends and no enemies, and I sincerely hope that we may be friends.

I have heard the "voices" many times. With me they have been most friendly voices, and I have at times, done their bidding with every good result. I surmised the "voice" to be that of God. I have heard sweet music that could not possibly have come from any natural source. I have been healed by some unknown power.

Something caused me to jump up and run outside one night at 9:00, to see a space ship (?) streak across the sky, from the east to west in about 5 seconds.

I had a broken bolt from the water pump on my car replaced with another one identical to the 5 good ones, right under my very nose, and while I was handling them. I have had many important dreams that came true, which if I could have interpreted them rightly I would have benefited by them.

At first I believed that religion and its miracles answered all these questions. But now, I know it does not.

I believe you have supplied the answer to all these seeming mysteries.

As I said I am an idealist so the natural question is, "What can I do to help?" Yes, I am ready to stick my neck out, come hell or high water, and do all in my power to help get us and the cave people out of the awful mess we are in. I am not going to ask a lot of questions. If you feel that I could do any good, in any way, I will let you do the bidding and I will try and follow instructions.

I know that on three different occasions about a year apart, I was shown the entrance to a cave. I thought it was just a dream but since reading your Shaver Mystery Magazine three identical dreams of the same cave entrance take on new meaning. I know exactly where this entrance is and can draw a map of it.

It is in Nevada.

Please believe me, I mean what I have written. I am not trying to pull a fast one, and I will cooperate with you 100 per cent.

Frank D. Matchett,
2702 Melbourne St.,
Houston, Texas.

We'd be delighted to know where your cave is, because we'll send somebody to explore it!—Ed.

IS IT DEROS?

Sirs:

I have been very interested in your "stories." So interested, in fact, that I'm sure they are true. I have every copy of the stories from the beginning of them and wouldn't part with them.

You probably won't answer my letter but I'm taking a chance. For quite a while I have considered asking you about something that is very important to me. I can't understand it and have gone to many doctors. When I tell them of it I know they don't believe me because of the way they look at me and also some of the things they tell me such as, that I just imagine this. Seven years ago this happened (before I ever heard of a science fiction magazine) and it has been going on since. I had a severe case of uremic poisoning and afterward this happened to me. I felt something in my mind. The things I saw weren't bad in any way. I saw people walking down a road carrying a very large glass jug or I saw a hay field with the sun shining brightly on it. Not unpleasant as I said, but I didn't like it and it made me feel very frightened and the blood rushed through me and made my body and head feel hot when this feeling or seeing had passed. Sometimes I wasn't here but somewhere else. Not doing anything, just standing there, I could see. After that I again felt frightened, and hot, and weak. When I first told my husband this he asked me if I was losing my mind. I was sure I wasn't losing my mind. That hurt, but I guess he couldn't think anything else. Now since last December I have been going to a neuropsychiatrist in St. Louis. He has used the electroencephalograph on me and says I have a tendency toward epilepsy. True, I had convulsions when I had the uremic poisoning but I have had none since. Right now I am taking a new medicine which was in the experimental stage when I was first given it. It is now called mesantoin, which the doctor says contains barbitol and it makes me so sleepy, and I feel terribly tired all of the time when I take it. That, I have been taking since January, as the first medicine I was given had a terrible reaction which the doctor said he's heard of before. I wanted to explain this so you could tell what I am living against. Last December I got tired of it all and took all my sleeping tablets, but my husband called the doctor and that is why I am going to a neuropsychiatrist. The doctor called in that night told my husband privately that he thinks I am insane. Do you think that this thing you are telling about has anything to do with these terrible "feelings" I have? I had nothing like that before the trouble I told you about. Could that have caused me to be sensitive to the machines you tell of? This medicine I take hasn't cured me but seems to make my mind numb and I don't have many of the "feelings" any more but what I do have I still think are terrible although I seldom see anything any more.

I do hope you will answer my letter and please, if you do, tell me very frankly what you think.

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I may be wrong about any of the deros thinking I am important enough to torment but I'd like to know.

My mother is very religious and had an experience that she still says was the devil tormenting her and she won't even talk about it and that happened 15 years ago.

Mrs. Jesse T. Hildreth,
Box 23,
Newburg, Mo.

We don't think seeing hay fields and people carrying jugs is the work of deros! Nor is it insanity. You ought to just forget about it, because there doesn't seem to be any danger connected with it. Relax, and quit thinking you're insane. Lots of people worry about such things, with no reason for worry at all. Psychiatrists today are trying to show that our little mental aberrations are all perfectly normal, and that all of us have something or other of the sort. Mostly it's imagination.—Ed.

THE FLYING SHORT CIRCUIT

Sirs:

On a flight from Bermuda to Long Island during April, 1947, a Douglas DC-6 experienced the following odd occurrence.

This plane was struck four times by lightning within half an hour. The first explosion was experienced 40 minutes out of Bermuda at 4000 feet. Following this "searing explosion of light" the pilot climbed to 8000 feet. This took them from beneath a ragged and murky overcast to an altitude where they occasionally encountered the tops of clouds. No sooner had they settled to reduced cruising speed than a third and fourth explosion rocked the plane. The last one blinded the pilots and nearly knocked the transport out of control. "The lightning caused deafening explosions in the vicinity of the nose, blinded the pilots and created a burning smell in the cockpit. I have been flying for 17 years and have never experienced anything comparable." (Statement of passenger.)

All the flashes traveled back the port side, the last having light red edges with the center blue-white. The sound was a definite boom, no crackle. After the fourth explosion the pilots raised to 12,000 feet and proceeded without incident. Upon arrival close inspection revealed that nearly one and one-half square feet of the port elevator had blown out. A 1½ inch hole was burned raggedly in the starboard elevator. Bonding wires in the plane were in excellent condition.

The first two loud reports happened while flying in light rain, no lightning had been seen except at a distance. The third and fourth explosions occurred during light rime ice and snow. Strangely enough, *radio communications had been unusually good during the emergency. Indicating the static dischargers were operating efficiently.*

Investigators believed that static charge built up while the aircraft was flying in precipitation.

They reasoned that the static charge increases in potential as the temperature decreases and the amount of charge communicated to the airplane increases with its size and with the cube of the plane's speed. At the time of the worst discharge, conditions were favorable to static formation.

Other investigators believed that the plane was passing through fields of charge "variable in intensity and with gradients almost strong enough to ionize the atmosphere." Entering the field, the transport replaced part of the normally high impedance space with a dead space. It "shorted out" high gradients of charge and thereby itself caused the four bolts of lightning.

Interesting was the report that the radioman had just keyed his set on CW at the time of the worst explosion.

This is in the area where those three or more navy planes disappeared last year.

Robert B. McGee.

Very interesting. We don't believe this was static electricity or lightning. What about that giant blue explosion over Idaho which covered two hundred miles? And those holes burnt in the plane? Too many airliners have crashed with those holes in them. Let's not say it was the dero shooting at them with rays, but let's not say it's something else which it isn't! Until the scientists bring up a better explanation (and a cure!) your editor is staying out of the sky!—Ed.

PARASITES

Sirs:

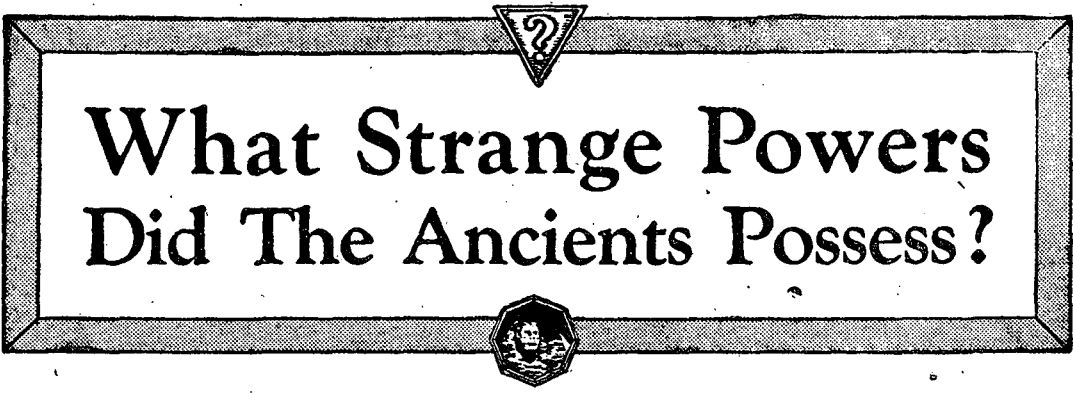
Your letter in August issue of AMAZING STORIES anent parasitic life forms in brain tissue interested me more than your fiction stories.

Trichina, which afflicts pigs, is quite similar to the effect you mention although the parasite occurs more often in muscular tissue. The thing you describe in brain tissue COULD be the basis of so-called "infantile paralysis"—about 75 percent of persons who contract this affliction recover without ever knowing they had it (see latest reports of American Medical Association).

However, quite aside from bacteria there are other forms of parasitic life that attack and warp men's mental and emotional reactions. Fungi in particular. An ordinary seed-wart in the external skin is merely a fungus spore that becomes implanted by accidental contact, adapts itself and grows on human skin instead of on the vegetation that is its usual environment.

Women, in particular, suffer from fungus attacks due to ignorance and carelessness in early adolescence.

Another area affected by parasitic fungus is the honeycomb areas of the skull involving the sinus and the passages connecting with the ears. Small, healthy children have a constant flow of soft wax which may be seen at the ear openings. In a very few years this disappears simply because of parasitic infiltration that eats and dies to leave a hard, tough, thread-like deposit which impedes movement of soft wax, often blocks ex-



What Strange Powers Did The Ancients Possess?

EVERY important discovery relating to mind power, sound thinking and cause and effect, as applied to self-advancement, was known centuries ago, before the masses could read and write.

Much has been written about the wise men of old. A popular fallacy has it that their secrets of personal power and successful living were lost to the world. Knowledge of nature's laws, accumulated through the ages, is never lost. At times the great truths possessed by the sages were hidden from unscrupulous men in high places, but never destroyed.

Why Were Their Secrets Closely Guarded?

Only recently, as time is measured; not more than twenty generations ago, less than 1/100th of 1% of the earth's people were thought capable of receiving basic knowledge about the laws of life, for it is an elementary truism that knowledge is power and that power cannot be entrusted to the ignorant and the unworthy. Wisdom is not readily attainable by the general public; nor recognized when right within reach. The average person absorbs a multitude of details about things, but goes through life without ever knowing where and how to acquire mastery of the fundamentals of the inner mind—that mysterious silent something which “whispers” to you from within.

Fundamental Laws of Nature

Your habits, accomplishments and weaknesses are the effects of causes. Your thoughts and actions are governed by fundamental laws. Example: The law of compensation is as funda-

mental as the laws of breathing, eating and sleeping. All fixed laws of nature are as fascinating to study as they are vital to understand for success in life.

You can learn to find and follow every basic law of life. You can begin at any time to discover a whole new world of interesting truths. You can start at once to awaken your inner powers of self-understanding and self-advancement. You can learn from one of the world's oldest institutions, first known in America in 1694. Enjoying the high regard of hundreds of leaders, thinkers and teachers, the order is known as the Rosicrucian Brotherhood. Its complete name is the “Ancient and Mystical Order Rosae Crucis,” abbreviated by the initials “AMORC.” The teachings of the Order are not sold, for it is not a commercial organization, nor is it a religious sect. It is a non-profit fraternity, a brotherhood in the true sense.

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Sincere men and women, in search of the truth—those who wish to fit in with the ways of the world—are invited to write for a complimentary copy of the sealed booklet, “The Mastery of Life.” It tells how to contact the librarian of the archives of AMORC for this rare knowledge. This booklet is not intended for general distribution; nor is it sent without request. It is therefore suggested that you write for your copy to Scribe W. N. Z.

The ROSICRUCIANS
[AMORC]

San Jose

California

cretion of a wax gland, sets up pressures on nerve centers and does strange things to human emotions, moods and behavior. Asthma, sinus trouble, "migraine headaches," epilepsy are merely the effects that are readily noticed. Most of those who suffer in some degree from such parasitic attacks . . . never realize the cause of the moods and emotional pressures that hamper their lives.

The "caves, passages and tunnels" of the SKULL are indeed afflicted with inimical life forms. For all I know that may be what you have been leading up to from an approach compatible with the vehicle (AMAZING STORIES) in which you gained audience.

We have experimented with this problem for several years seeking a method of attack. In all adults the passage from lower ear to the throat is partially blocked by such growths and deposits. The upper ear passages and sinus passages are partially or wholly blocked. How much this affects the moods, emotions and attitudes of reaction in so called "normal" people—we do not know.

Personally, I had not associated your dramatic fiction stories with the "caves and passages" in the human skull . . . until I read your letter anent parasitic life forms that attack humanity. That made me sit up with a start . . . and decide to write you.

Particularly in the sinus passages there are nerve centers just under the mucous membrane that belong to the sympathetic nervous system . . . i.e., the nerves that function as coordinators . . . so that pressure or irritation can produce most any effect from bleeding piles to ungovernable rage. I see no reason why this might not account for Hitlers, harlots, or hallucinations.

George A. Foster,
Jhetong ko Tal

Research Foundation,
P.O. Box 300,
Stoughton, Mass.

We believe, too, that the "caves" of the mind can easily parallel the Shaver caves. Shaver himself says that there are many things about the human mind that are like his caves. If you read his "fiction" from the beginning, you must know by now there is a lot more in it that is truth than just the ideo of dero and tero and the underground caves and the Elder Gods of space.—Ed.

EFFECT OF MOONLIGHT

Sirs:

In Moonstruck by Raymond Lee in the December issue of *Amazing Stories* he claims that modern scientists say that the light of the moon has no effect on the human body.

I am an affiliate of the Spectro-Chrome Institute of Malaga, New Jersey. This Institute makes researches in the effect of colored light on the human ingredients of light. By light in its effect on the body I mean visible light, not the rays below and above the color spectrum.

Light consists of two major sections, what we call infra-green and ultra-green, in the rainbow or the color spectrum we find red at one end of the spectrum, green in the middle and violet at the other end. These are the primary colors, as to why some authorities class blue as the third primary, I don't know, because violet is the last color visible on the one side just as red is the last color visible on the other. We call the colors below the green the infra-green and the colors above the green the ultra-green.

The infra-green colors are the hot colors and the ultra-green colors are the cold colors because each partakes of the properties of the heat rays on the one end and the cold rays on the other.

STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912, AS AMENDED BY THE ACTS OF MARCH 3, 1933, AND JULY 2, 1946 Of *Amazing Stories*, Published Monthly at Chicago, Illinois, for October 1, 1947

State of Illinois, County of Cook, ss. Before me, a notary public in and for the State and county aforesaid, personally appeared Arthur T. Pullen, who, having been duly sworn according to law, deposes and says that he is the Business Manager of the *Amazing Stories*, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily, weekly, semiweekly or triweekly newspaper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the act of August 24, 1912, as amended by the acts of March 3, 1933, and July 2, 1946 (Section 537, Postal Laws and Regulations), printed on the reverse of this form, to wit: 1. That the names and addresses of the publisher, editor, managing editor, and business managers are: Publisher, William B. Ziff, 185 N. Wabash Ave., Chicago 1, Ill.; Editor, Raymond A. Palmer, 185 N. Wabash Ave., Chicago 1, Ill.; Managing Editor, William L. Hamling, 185 N. Wabash Ave., Chicago 1, Ill.; Business Manager, Arthur T. Pullen, 185 N. Wabash Ave., Chicago 1, Ill. 2. That the owner is: (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding one percent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a firm, company, or other unincorporated concern, its name and address, as well as those of each individual member, must be given.) Ziff-Davis Publishing Co., 185 N. Wabash Ave., Chicago 1, Ill.; William B. Ziff, 185 N. Wabash Ave., Chicago 1, Ill.; B. G. Davis, 185 N. Wabash Ave., Chicago 1, Ill.; A. Ziff, 185 N. Wabash Ave., Chicago 1, Ill.; S. Davis, 185 N. Wabash Ave., Chicago 1, Ill. 3. That the known bondholders, mortgagees, and other security holders owning or holding 1 percent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.) None. 4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; and also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him. 5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the twelve months preceding the date shown above is _____ (This information is required from daily, weekly, semiweekly, and triweekly newspapers only.) ARTHUR T. PULLEN, Business Manager. Sworn to and subscribed before me this 25th day of September, 1947. [SEAL] GEORGE H. FISHER. (My commission expires December 17, 1950.)

Now we come to the effect of the light of the moon on the body. The major organs of the body are activated by the vibrations of the hot colors, and spleen is the only organ activated by the cold colors, namely violet.

The light of the sun is predominantly on the heat side. The light of the moon is cold light. The heat elements have been removed. The light from the sun being a combination of the hot and cold colors or vibrations activating both sides of the body whereas the light from the moon being on the cold side of the spectrum activates only the spleen. The spleen, according to our system, makes the white corpuscles while the liver makes the red corpuscles. When one has an over-supply of white corpuscles they produce what is known as leukemia. Which is very bad. These white corpuscles eat up the red corpuscles.

Anywhere the red color vibrations increase activity the action of the cold light of the moon on the spleen reduces the energy output of the body.

There is another angle on this cold light business with incandescent lighting. You get the heat rays as well as the cold rays. In fluorescent lighting on the other hand, the heat part of the light has been removed. In other words the light has been polarized, or made to travel in one direction only. If you have noted, the light from the moon and the light from fluorescent light give the same effect, as if there were something missing, which in fact there is, the heat element. We don't think that fluorescent light is good for the body because of the absence of the heat element. In other words, it takes both sides to make a whole man. The same applies to the light from the moon.

I hope that this gives Raymond Lee something to think about.

Arthur Whitcomb,
7220 S.E. 85th St.,
Portland 6, Oregon.

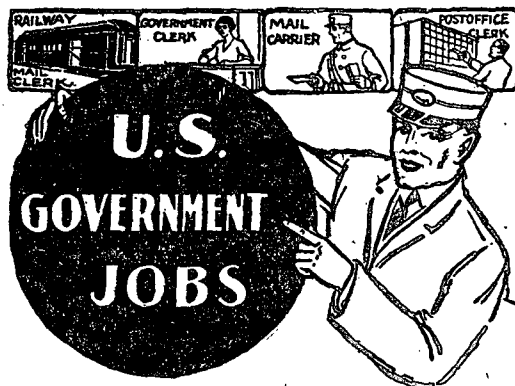
We thank you for this information, and we pass it on to Mr. Lee and to our readers.—Ed.

YOU MIGHT BE RIGHT

Sirs:

I enjoy the Shaver stories very much. They are at least as entertaining as any fiction story and have a little something extra in the could-be-fact appeal. Let's have more of them. I disagree with the people who discount them entirely. As far as I am concerned they are very definitely in the open-for-discussion class.

—But what I really want to say is this: Could Shaver's rays offer a solution to the phenomena of the Aurora Borealis and Australis? The traveling of these rays through the atmosphere might produce some unusual kind of ionized particles that would collect over the magnetic poles. They might also have properties similar to negative mass. Therefore, they would be squeezed away from the equator by the heavier atmospheric atoms under the influence of centrifugal force,



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thereby collecting over the axial poles. When they had collected in sufficient concentration, they might produce the (quasi) electrical discharge we know as the auroras. I would like to see Shaver write a short fact story describing the things that take place when he is beamed, complete with authentic dialogue (I assume that Shaver gets to put his two cents in).

AMAZING deserves a bouquet for sticking its neck out by printing stories about such a "hot" subject.

Dave Lesperance,
231 S. 22nd St.,
San Jose, Cal.

We do have some of that dialogue you mention, and we'll try to get some into a future issue. It really is interesting!—Ed.

YOUR ARGUMENT IS NO GOOD!

Sirs:

I have just read Mr. Rog Phillips' "Answer to Our Readers." Although I agree with him that the only way to prove "So Shall Ye Reap" has no foundation in fact is to work out all of the possible disintegration sequences. I think that it is a rather unfair challenge to the scientists. Such exhaustive proofs would require months if not years of research and the result would come too late to be of any use in preventing such a catastrophe.

Not being a scientist, I am in no position to argue with Mr. Phillips, but I must admit that some of the disintegration sequences he gives as proofs seem a bit farfetched, if not impossible.

However, I enjoyed his story very much as fiction, and it might very well be true.

Don E. Self,
4100 La Luz,
El Paso, Texas.

Assuming that the bombs do cause the damage Mr. Phillips suggests, no matter how long it would take the scientists to determine that would be better than finding out we are exterminating ourselves too late to prevent the act!—Ed.

YOU SAID IT!

Sirs:

There will be millions of humble people like myself who have wanted to put into words the beautiful theories expressed by Mr. Sherman in story form. I refer to "The Green Man Returns."

I cannot help but be convinced that Mr. Sherman has written much of what he believes. If only the world at large could be organized as he dreams.

Many of us little folk have thought and talked the very ideals contained in the story. Many of us would give anything to see it in practice. Few there are who have the aptitude or the gift for putting across these fundamental, spiritually earnest principles—and, if we had, who would permit people to listen or believe?

Perhaps some day a Sherman's "Numar" will come to this old Earth of ours and straighten out

our ills—it is to be hoped, for man is getting deeper and deeper into the slough of self-desire, corruption, and ignorance.

This is just a personal thank you to Mr. Sherman for expressing mine and so many others' thoughts of a fine philosophy. I wish that he and others who write like him would do more than write a story.

E. N. Morton,
17 Charles St. West,
Toronto, Canada.

We agree with you completely!—Ed.

ATTENTION SHAVER FANS

Sirs:

This letter will serve two purposes. It is directed to those of you who have joined the Shaver Mystery Club, and also to those of you who have not as yet joined the club, but have shown your interest in the theories of Richard S. Shaver by contact with the country's greatest science-fiction magazine, AMAZING STORIES.

As you all know, Richard Shaver has presented in fiction form his own amazing theories of the "cave worlds" and the "dero" who inhabit them. It certainly is for no layman to judge whether or not Shaver is right or wrong, unless he has the full facts and enough evidence to definitely determine for himself, afterwards, the answer.

Are there secret caves underground where "dero" control the ancient machines of the titans? Are these "dero" responsible for the disappearance annually of tens of thousands of Americans alone? The Bureau of Missing Persons cannot explain this fact. Is Shaver right, then, that these people are being used for the sadistic pleasures of the "dero"? Are they slaves in the hidden caverns beneath the surface of the Earth?

And what of the so-called "flying saucers"? Are they indeed what Richard Shaver has said they are and *predicted* before the current national furore concerning them? Are they indeed craft capable of space flight? Are they here for the reasons Shaver says they are?

I am frank in saying that I don't really know—yet. And neither do most of you. But one thing I do know—and you do too—that too many things have happened that tie in with the now famous "Shaver Mystery" for it to be discarded with either a shrug or the commonly used term, coincidence. There is something behind all these phenomena. There *must* be some answer. Shaver maintains he has the answer. And that is why the Shaver Mystery Club was formed.

Already we have a great number of active members, contributing their own personal bits of information, information which when finally sifted down will be published in the coming issues of the club magazine. And we hope that eventually some definite answer will be reached, an answer that will be backed up by *proof*, one way or another. Also of great interest to any person who has read Shaver, is his huge 200,000 word

novel, "Mandark," the story of the Life of Christ, which is being published in installments in the club magazine. A great deal of pertinent evidence for the entire Shaver Mystery is contained in this novel. It is a vast, thought-provoking account.

So if you haven't as yet joined the club, please do so. There are no dues. This is not a profit venture. The only cost is the subscription to the club magazine, which makes the club, and our investigation possible. The subscriptions pay for the publication of the club magazine, a printed job, which in these price-inflated days is no easy task. The subscription price is \$1.00 for each two issues, but you can subscribe to as many as you want. Two have already been published. The third will be out by the time you read this letter. We are trying to get an even publication date for the club as a bi-monthly, so as Honorary President of the club I am asking for your support—and any help you can give to further our investigation. Please let me hear from you.

Chester S. Geier,
The Shaver Mystery Club,
2414 Lawrence Ave.,
Chicago 25, Ill.

We would like to add our own voice to that of Chet Geier, in saying that we think the Shaver Mystery Club is a sincere effort, and that we have seen the club's publication and that all Shaver fans, and even those of you who are not, are missing something if you haven't read the first two parts of "Mandark" and the other articles and letters from people all over the country both pro and con on the Shaver Mystery, as published in the club magazine.—Ed.

A NEWSY LETTER!

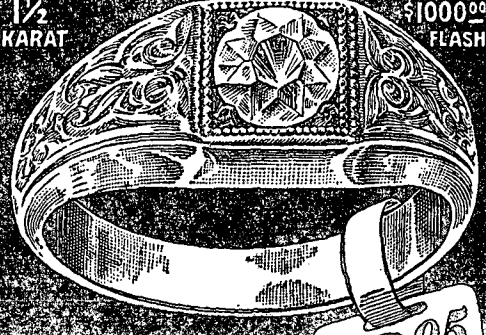
Sirs:

The Observatory part of your book is good. None are so blind as those who won't see. I didn't get to see the discs, but I believe they were here or are still here. As for Shaver, if he would go on some of those adventures of his and I wasn't married, happily, mother of three small children, swell kids, too (19-17-15), I would like to team up for adventure with him. I don't suppose my heart would hold out long, but I would have one slappin' good time while it lasted. Your stories are all good. I couldn't make a pick among them if I had to. As for "So Shall Ye Reap"—know anything about the deep caves the War Department is digging in New Mexico? My husband and I are joining the Shaver club. Maybe it's nosiness but I don't want to be left out on the know. I can't understand why some people think we are nuts, for reading this kind of book. For so many things that have been printed in A.S. have come true. I read the Observatory, Data, and Discussion pages first, for when I start the stories I don't like to stop till I am done. In G.H.S. letter on the Discussions page he said he "stayed up half the night." Well, I am a slow reader and sometimes it takes me two days, but it's good sleepless time spent. I couldn't sleep

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anyhow for wondering how it all came out in the end. It's a good thing you don't publish weekly or daily because I would never get any work done. G.H.S. has a point and I wonder if it has anything to do with the Navy's Atomic project (Hush-Hush) of cave digging in New Mexico as in "So Shall Ye Reap."

Well, we have had freak weather and storms all summer and earthquakes in places where they never were before. Several people have mentioned that the flies haven't been so bad. I mean they are still pests and bite but there are not so many of them. People I have never heard of say they have never seen anything like this and say that they believe the atomic bomb had something to do with it. And a lot of others say, "Oh yes, blame everything on the atomic bomb like people did on anything new in the old days." Now don't get me wrong. I know we had to make use of the atomic bomb, but did you see the News' Review Pictures of it. The cloud formed a face in a war helmet, of a Greek war god. I only saw it once, the other reel didn't show it. It probably was cut out. But I wasn't the only one to notice it. Rumors went up all over the theater. Some of the rumors were, "Did you see that face?" "Believe me, it was a face you won't forget in a hurry; a mean face of ice or steel," "Look, there's the face of Mars," "The face of Ares," "Look, the face of an old warrior," and a lot of others. I don't know if I said anything. I just had a cold feeling. By the way, did your fans see the picture, "The Beginning or the End"? Every person in the world should see it. It may not mean anything to us grown ups, but what of our children, and our children's children? To top it off I saw it about two weeks after I read "So Shall Ye Reap" and it really made the hair stand up on the back of my neck and sent chills up my back. The only time that happened was the night the mountain lion yelled in the hill in back of the house. I was living in them and I was alone with my two babies, two and four, while the men were hunting it. So see the picture. Sorry, I didn't mean to get away from the story but I got carried away by memories. L.V.D. letter—Yes, I like reading about the caves, too. S.S. letter—Says he's dealing with the War Department. Maybe it is the answer to the cave digging in New Mexico. I'm like the cat. It's really got my fur up. V.B., Jr., letter—I'll be watching for R.P.G.'s book notice. K.H. letter—May not be far off for I know the War Department is on a secret in New Mexico. Mrs. L.W. letter—Has her point. They won't know any better and good will come of it. Even though I and mine won't be of the chosen. As for Scotty, I don't know the guy's name but no one knows where he came from or where he goes. He always has plenty of gold and buys the same thing. Crooks always have a spy waiting for him and follow him but always lose him. Where does he go? A. letter, I do believe and would like to hear about articles in S.N.L. Does A.S.

have any data on a lost place in the North where it is warm and they live like they do in the South Seas? I have heard about it as far back as I can remember. I've had a few strange things happen to me. You know everybody wants to get in the act. First off, every time I hear a plane I run out to see it fly to the big towns. They are around all the time. But I know the sound of the T.W.A. and home planes that go over. So if they make a noise I get to see all different kinds. I saw a blimp 20 years ago. I don't know if it was the first over Johnstown or not but was early one Sunday morning and no one else saw it. And I can remember the first airplane over Johnstown. How the whistles blew to let people know it was coming. And I've seen a ghost three times and the first space ship (I think that's what it was). About 12 years ago and in the fall of 1928 between 11 and 12 we saw a red or gold ball in the sky the size of a volley ball. It looked like a small sun spinning only didn't light up the sky. It appeared and disappeared like you would turn a light on and off. We saw it light and stayed on about 30 minutes, then it was gone. Then last Fall my youngest girl (15) came running in and shouted, "Mother, come quick, there is something in the sky." No noise, but you could follow the two of them by the white trail they left around the sky. They moved a lot faster than any plane I ever saw and they were so high I couldn't see them, whatever they were. They went clear across the sky heading for the Moon. As they went out of view there was a big arc in the sky of white smoke and the papers said they couldn't find out anything about them.

Mrs. Z. P. Mishler,
423 Woodland Ave.
Johnstown, Pa.

Thanks for your report on that strange object in the sky. No one doubts these stories any more! They are appearing frequently nowadays.—Ed.

MR. GUTHRIE IS CHALLENGED

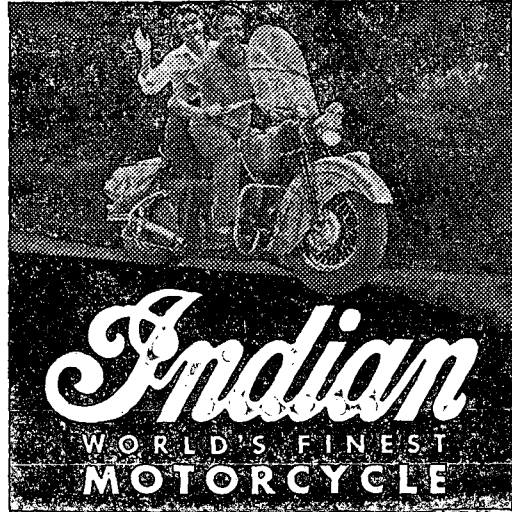
Sirs:

I am writing this letter in criticism of the article titled "Wireless Transmission of Power," which appeared in the October issue of *Amazing Stories*.

The engineering profession, for the last several years, has been trying to command the respect accorded to other professions, such as law and medicine. I feel that this can never be done if such scientific trash as the aforementioned article is allowed to pass, unchallenged, as the practical proposal of an—engineer.

I propose to consider Mr. Guthrie's article point by point and show that the mistakes made and important facts entirely omitted, are so numerous as to exclude all possibility of the plan being the product of a scientifically trained engineer.

Since Mr. Guthrie shows transformers in his circuit, I assume that he proposes passing alternating current from the powerhouse to the ship;



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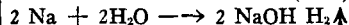
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therefore, an alternating voltage must be applied across the two (i.e.) across the body of salt water. Now, any high school student would realize that such a procedure would be accompanied by the forming of Sodium (Na) at the terminal, then negative, and Chlorine (Cl₂) at the terminal, then positive. The Sodium then would react with the water (H₂O) as follows:



Therefore, during the first cycle we would have Chlorine produced at the one terminal and Sodium hydroxide and Hydrogen produced at the other terminal. Of course, during the next cycle the above products would be produced at opposite terminals to the previous cycle. Summing up, then, we would have a mixture of H₂, Cl₂, and NaOH at both ship and powerhouse but H₂ and Cl₂ combine with explosive force in the presence of light forming HCl (Hydrogen chloride gas); therefore, if Mr. Guthrie's idea would work, we should have continual explosions occurring at both ship and powerhouse, and in addition we would be destroying sea life with the sodium hydroxide.

I should think that this unhappy state of affairs would hardly be proposed by a person having any considerable scientific knowledge.

Passing on we come to the statement, "water is practically incompressible just as an electronic current." I would be interested in learning just how Mr. Guthrie proposes testing an electronic current to see whether it is incompressible or not.

In the next paragraph, Mr. Guthrie states, "Q = Idt (where Q is the product of current and instantaneous time)." Of course, it should have read either $dQ = idt$ or $Q = \int i dt$ (where i is the instantaneous current and dt is the infinitely short time during which i may be considered constant). He seems to sense intuitively from this somewhat sloppy mathematical statement that the condenser (not capacitance of the condenser) is inversely proportional to the frequency. Again he demonstrates, by using "condenser" rather than "capacitance" of the condenser, his inability to express clearly and accurately what he wishes to say.

However, even if the statement had been worded correctly, $Q = \int i dt$ it would still be incorrect to say that from that statement we may conclude that the necessary condenser capacitance for a given current is inversely proportional to the frequency.

It would have been much more logical if he had brought the relation between capacitance and frequency as follows:

In any circuit $V = IZ$ where V, I and Z are r.m.s. (root-mean-square) values and Z is the impedance of the circuit. For a condenser only $Z = X_c$ (capacitance reactance) $= 1/CW$ but $W = 2\pi f$; therefore, $V = I/C\pi f$ and C (capacitance) $= I/V2\pi f$. From this last statement we can say that for a given current and voltage, the capacitance of the required condenser is inversely

proportional to the frequency. Here again the author has shown his inability to develop his argument in a logical scientific manner.

In the same paragraph Mr. Guthrie has made yet another blunder by stating that 3000-3500 cycles would be a most suitable frequency. Of course, 3000-3500 cycles means nothing unless the time in which the 3000-3500 cycles are made is also stated.

However, since electric frequencies are usually stated as cycles per second, I will assume that that is what he meant. Now consider what effect such high frequency current would have upon an A.C. machine. The relation between speed of rotation and frequency is given by $n = f \times 120/p$ where n is in r.p.m., f is in c.p.s. and p is the number of poles on the motor or generator (usually called an alternator when referring to A.C. equipment). If 3000 c.p.s. were used as Mr. Guthrie suggests and the "generator" had 40 poles (which is a high figure) it would still be rotating at 9000 r.p.m. Of course, such a speed would tear the alternator or motor apart by centrifugal force.

The only reason Mr. Guthrie gives for using such an unusual frequency for an alternator or motor is a vague reference to "polarizing and rectifying effects." I must confess that these references have no meaning to me in the connection Mr. Guthrie intends.

In the latter half of the article Mr. Guthrie makes so many vague statements and mistakes that it would be impossible to enlarge upon them all in this letter; therefore, I shall confine myself to a discussion of the "circuit" of figure III.

I assume that since he proposes using only one conductor that he will also use only single phase power rather than the usual three phase. In a single phase system the potential of each terminal to "ground" is only one half the potential between the two terminals. Since it is standard practice solidly to ground the neutral point of alternator windings and since this ocean is electrically ground; therefore, immersing either terminal in the ocean would short-circuit half of the alternator winding, hence ruining the machine.

I have not written this letter in such a scathing fashion to satisfy a sadistic desire but merely, as I first stated, to uphold the reputation of true engineers by pointing out that Mr. Guthrie could not possibly be one.

If Mr. Guthrie had confined himself to stating the desirability of. Wireless Power Transmission, I would not, indeed could not, have said anything, for that is the stated purpose of that section of the magazine. I agree with the policy of your magazine in trying to inspire properly trained men to accomplish what imaginative, though untrained, readers suggest, but I believe that any definite articles which seem to show the method by which the suggestion may be accomplished should be examined by a qualified person lest they be misleading, to some of the less informed readers.

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I would be very grateful if you find space to print this letter so that the name, engineer, will not be used so loosely in the future.

J. MacDonald,
Fourth Year Student in
Electrical Engineering at
the School of Practical
Science, Toronto,
200 Carlan Ave.,
Toronto, Ontario.

The editors want to point out that we do not consider the practicability of the ideas presented by our amateur scientists, but only present them so that practical minds may find them, and perhaps develop them. If we were to try to substantiate these things first, with a capable staff of scientists, we'd spend a lifetime checking one article, and spend the cost of an atom bomb in laboratory fees. We do not present these things as fact, but as "What Man Can Imagine . . ." and we admit to the most hare-brained ideas, but we also claim credit for forecasting every worthwhile development of the past 22 years! And thus, we do not cast discredit on the good name of any scientist or engineer. We are imagination and philosophy, the first steps to achievement! —Ed.

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Martin Menist, Jr.,
1335 E. 5th Street,
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The Cave Hunters Mutual Benefit Society is merely a group of our readers who have their names on file with us as "investigators." So there is no actual organization. However, if local groups do form, we think it would be a very fine idea. —Ed.

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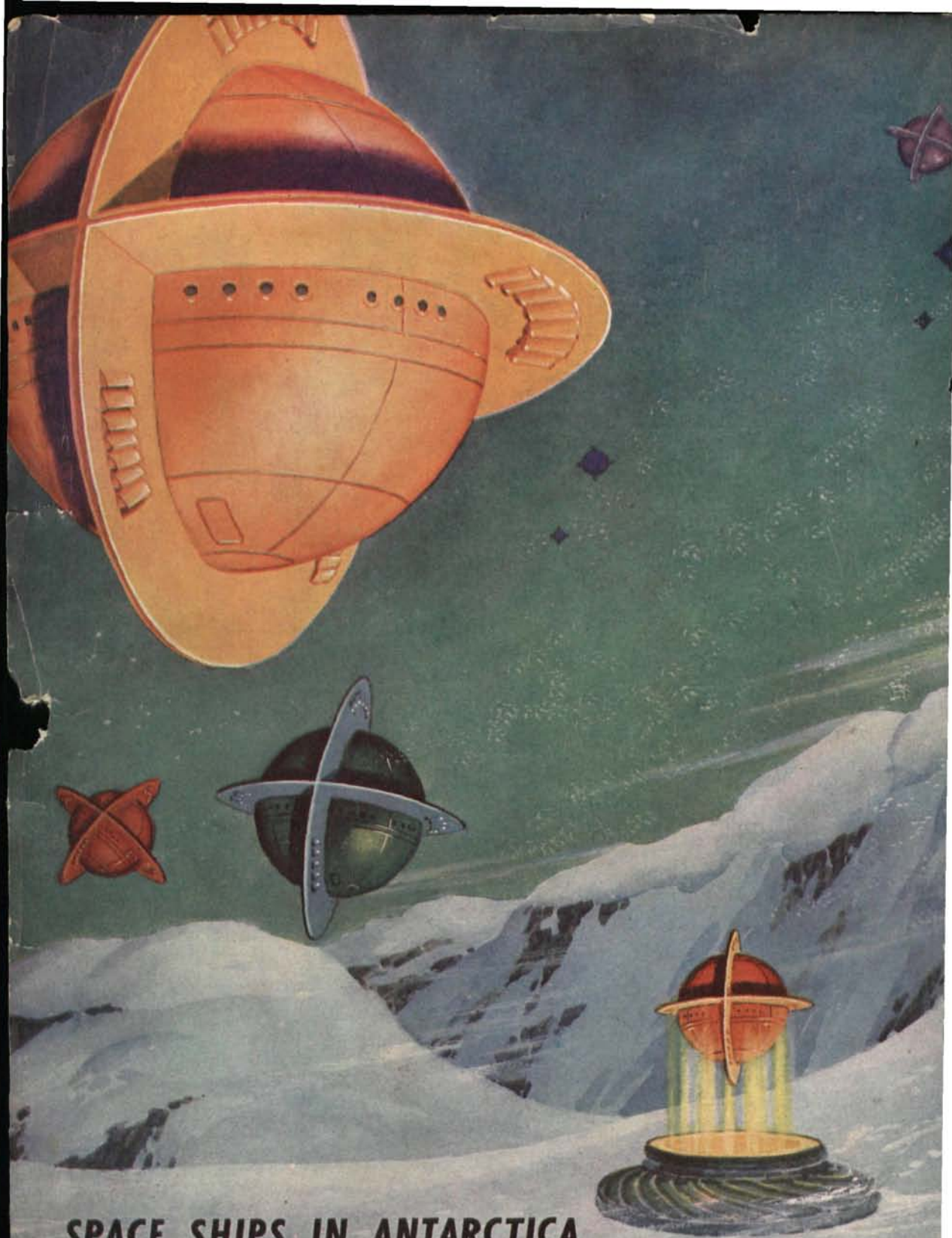
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